REPORT RESUMES

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DEVELOPING CURRICULUM FOR INDIAN CHILDREN.
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THIS WORKSHOP REPORT WAS PREPARED AS A GUIDE FOR TEACHERS OF INDIAN CHILDREN IN THE FOUR CORNERS AREA OF ARIZONA, COLORADO, NEW MEXICO, AND UTAH. A BRIEF DESCRIPTION IS GIVEN OF THE HISTORY AND DEVELOPMENT, UP TO THEIR PRESENT STATUS, OF UTE MOUNTAIN UTES, SOUTHERN UTES, JICARILLA APACHES, PUEBLO INDIANS OF NEW MEXICO, AND NAVAJOS. THE STATED PURPOSES ARE TO PROVIDE TEACHERS WITH INSIGHTS INTO PROBLEMS OF EDUCATING THESE CHILDREN AND TO PROVIDE KNOWLEDGE OF THEIR DIFFERENT CULTURAL BACKGROUNDS, LEARNING AND BEHAVIOR PROBLEMS, AND VALUES. PROBLEMS INHERENT IN THEIR CULTURAL TRANSLATION ARE DISCUSSED TO INDICATE AREAS OF NEEDED UNDERSTANDING, FOREMOST AMONG WHICH IS DEVELOPING THE ABILITY TO COMMUNICATE EFFECTIVELY IN ENGLISH. SEVERAL METHODS FOR TEACHING ENGLISH ARE DESCRIBED, BOTH FOR BEGINNERS AND FOR UPPER-GRADE STUDENTS. SHORT SECTIONS DISCUSS METHODS OF TEACHING SOCIAL STUDIES, ARITHMETIC, AND SCIENCE. PROBLEMS OF INTELLIGENCE AND ACHIEVEMENT TESTING ARE DISCUSSED. THE PUBLICATION EMPHASIZES THAT THESE CHILDREN SHOULD BE TESTED ONLY WHEN A DEFINITE PURPOSE IS TO BE SERVED AND THEN WITH GREAT CARE, SINCE MOST STANDARDIZED TESTS DO NOT INDICATE ACCURATELY THE CAPABILITIES OF INDIAN CHILDREN. MANY BIBLIOGRAPHIES, REFERENCES, AND TEACHING AIDS ARE GIVEN. THIS DOCUMENT IS ALSO AVAILABLE FROM THE CENTER FOR CULTURAL STUDIES, ADAMS STATE COLLEGE, ALAMOSA, COLORADO 81101. (DD)

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ADAMS STATE COLLEGE
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ALFRED M. POTTS, 2d

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DEVELOPING CURRICULUM FOR INDIAN CHILDREN

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Editor

Mamie Sizemore
Workshop Director

THE CENTER FOR CULTURAL STUDIES
ADAMS STATE COLLEGE
ALAMOSA, COLO.

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PREFACE

"Education" suggests to most Americans the process of securing, or the actuality of possessing, an adequate amount of knowledge with the ability to use the knowledge with competence. "With competence" suggests that there is a relationship with something. That "something" is the particular culture to which the education has been oriented and of which it is a part.

The American education -- whether considered as process, or, possessed -- is part of the American general culture. Its aim is to develop and expand the individual to possession of competencies in relating to multitudes of living-culture situations. The implementation of the relationships is expected by both the individual and the society to be consummated with a degree of adequacy that meets the standards of the society's culture.

If this thesis is accepted the question, then is: What must a teacher know in order to create truly affirmative learning in children of our society? The members of this Workshop: Developing Curriculum for Indian Children, in a short thirty-five hours of working time, have considered the answer to this question in relation to children of the Indian cultures. These are children of our society. They acquire the learnings, behaviors, values, points of view of their respective tribal cultures through infancy and early childhood and are continuing to live the (changing) culture of their people.

The next question is: Shall the schools continue the childrens' enculturation in the tribal way of life, or, shall they be acculturated into the ways and values of the general American way of life? With due consideration of the worths of traditional, native cultures, and of the environments in which they operate, the workshop group has accepted a point of view that the operation of change in the American social-cultural-economic milieu inevitably causes the minority-culture groups to assimilate into the general pattern.

This acceptance suggests that the pluralism traditionally evident in the American society will be lessened as the culture froms of minorities are absorbed, adopted, adapted, and become a part of the general culture. The structure, however complex, of the American system does suggest -- in reality, requires -- competencies of the individual to relate affirmatively within it to succeed in it.

For the teacher to be fully successful in his function he must be prepared with the knowledges and abilities necessary to relate fully with (1) the child and his culture; (2) the child and the major culture; and (3) the content and methodologies determined upon for their particular education process.

The Workshop group has attempted, within the time limitations, to consider the elements that are essential in educating the Indian Child of the Four Corners Area and has recorded some of their learnings and acceptances for inclusion in this publication. The entire process of workshop activity, preparation of manuscript, and mimeographing was complete before the close of the workshop. The Workshoppers express the hope that the publication may be as helpful to those who read it as the preparation of it was to them.

Unbounded appreciation is expressed to Mrs. Mamie Sizemore, Workshop Director; Mrs. Pauline Jones Hord, and Mr. Alvin Warren, Visiting Lecturers; the Arizona State Department of Public Instruction, the Phonovisual Products, Inc., and the U. S. Indian Bureau for their respective contributions in allowing the staff specialists to be with us. And, a word of appreciation from staff to each stddent for the enthusiasm and demonstration of rapport throughout the work period.

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INTERCULTURAL EDUCATION FOR INDIANS

Indian children have an opportunity to obtain their education through various means and ways. This could be through the Public Schools, Bordertown Dormitories, Government Schools, and Government Relocation and this could be termed intercultural education for the Indian since he would be mingled with other races and a different environment from his home. Today, many educators recognize that Indian children are handicapped by many things upon entering the Public Schools.

The differing tribes and backgrounds the Indian children come from, causes members of the tribes to be concerned about how the children will fare in school. Tribal cultures differ in behaviors and values, so education based upon the major American culture presents a problem for many Indian children. The appearance and complexities of school buildings create a great mystery for the parents of Navajo children. The parents wonder if their children will still consider walking in The Beautiful Way of the Navajo tradition. This is a belief held by the Navajo people that as a child grows, his elders try to help create conditions that will seem beautiful as he goes along. This is to insure an understanding that everything about him was made for him to enjoy its beauty.

If a sound education program is to have as its main objective, the results of favorable changes in attitudes and behavior; then the teacher must use methods understandable to the bilingual students to help them attain satisfying participation in a new way of life that will be benefiting to them. In order to gain full growth and development of the bilingual child in his capacity to think logically and purposefully, the teacher has to begin by desiring to learn about the bilingual child. He must know why the child does things the way he does and understand as fully as possible the background of a particular bilingual group, their needs, their interests, their ways of doings things.

Many questions are asked about an Indian child's capacity for education. Such a question may relate to whether a difference exists in the reactions or of the learning capacities of an Indian child from a non-Indian child. There is no definite knowledge of learning capability differences. The cultural environment of the Indian and the cultural environment of the non-Indian are different. The experiencing of each child within a culture may influence his behavioral responses to such an extent that testing for measurement of innate variations cannot be accepted as totally reliable.

The differences inherent in cultures are often foundationed upon points of view, values, and attitudes that are at variance with the new culture; thus, the difficulties in acculturation. The background experiences of these children are not the same as that of children who have lived in towns and villages.

The Indian today is confronted with accepting fully his tribal culture or leaving it entirely for the non-Indian standards. The Indian groups find themselves in a transitional state which requires choice of direction. It is more difficult for an Indian child, or an adult, to accept the changing situations, or to achieve to his fullest, because he is strongly held to the ancient values where there is little conflict. The diverse beliefs and the values held by different Indian tribes account for the indifference shown by children in learning concepts contrary to ideas taught them by their parents.

Indian children who enroll in the various types of public schools are placed with children of different backgrounds in the school situation. An element very necessary for the growth of the learning process is to have teachers who have understanding and insight for all cultural groups in their classrooms. It serves well that the teacher should have a good orientation and wide background of information concerning the types of children he is to teach. He must be willing to accept the Indian and the rest of the children where they are and be responsive to their needs.

The public schools help to foster integration for the Indian child with other children. Before this can be accomplished, the school and the teacher must be sure that all groups of parents are willing to permit equal opportunity for all the children if integration is to progress. The public schools must see that all children have this equal opportunity to learn. From this learning the children receive and pass on to the parents, who will in turn accept each other as individuals, that all people learn to work together in areas mutually beneficial.

These learning experiences that are provided for the children should be geared to the needs of each group and each individual regardless of the heritage group. If integration is to progress in the right direction, children will have to learn and be taught to work and play together and feel good about school. Sometimes the Indian child's achievement is not as rapid as other children, this may be due to the language barrier. Language is a major means for communication of culture "ideas."

Getting the child motivated is very important. It allows the child to do what he is capable of in his own setting. Once the child has been "reached," you can be more sure of the child learning all that he can learn. Indian children through going to school gain actual experience of living, learning, and playing together, thus giving them a background which helps them to more rapid adjustment to community living when he reaches later life. Indian children can be motivated to learning quickly if teachers are able to unlock the mysteries of their new horizons by relating to the experiences and concepts the children already possess. Educators must work constantly from the known to the unknown. The learning of the English language through first hand experiences -- the seeing and the doing of the *real* thing for which a word is the symbol -- is important in the culturation process. Through manipulation of objects they know and visualize the object in their minds and they can remeber to recognize it more readily the next time they see it. Making use of the children's immediate environment to stimulate their desires to communicate in the new language they are learning through close, known relationships is important.

Separate school systems might seem to be a solution to education of the Indian. But, what good can evolve in a separated experiencing when the emphasis is placed upon the Indian to become educated in the broadest sense for *full* cultural adequacy? Indian children need to be made aware that their personal capabilities need only be found and developed.

It is only through education, which is one of the oldest institutions in America, that people can still learn and live together. And even though different in cultures, they can retain their cultural individuality. It is a tremendous responsibility of a teacher in a bilingual area to learn as much as possible about the children and find effective ways of helping all children to develop a well-rounded adjustment to life. The most important event that is gradually being realized is the putting together of cooperation and devotion of all people for schools and a better education program.

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PART I

INDIANS OF THE FOUR CORNER AREA

Colorado, New Mexico, Arizona, Utah

1. **Utes**
    - The Ute Mountain Utes
    - The Southern Ute Indians
2. Jicarilla Apache
3. Pueblo Indians of New Mexico
4. Navajo

THE UTE MOUNTAIN UTES

The Utes, the high mountain people who have been called "the Switzers of America" first made their home high in the Rocky Mountains of Colorado. The Utes called themselves "Nuntz" or "The People." The Utes were a laughing people whose wants were few. Their mountains and streams were alive with food: game, fish, many kinds of wild berries and edible roots. Their men were stocky, well-formed warriors who hunted, trapped and traded some with their neighbors, the Navajos. They went to the plains only to hunt for buffalo, or to steal from their enemies the Sioux and Cheyenne, and, then, back to their "Shining Mountain" they would ride. Time had little meaning to the peaceful Utes. There were many dances, festivals and games. Theirs was a life "where man owned little, but belonged to everything," however, time changes everything.

At the present time the Southern Utes are established on a long narrow reservation in Southwestern Colorado, at Ignacio. A few have taken up farming, others raise livestock. The Uncompahgre or Northern Utes are on a reservation in Southeast Utah at Fort Duchesne. The Weeminuche band now known as the Ute Mountain Tribe were the last to give up their nomadic existance. After 1931 when the ration system stopped, they lived a meager existance, raising a few sheep and cattle for a livelihood. Due to the scarcity of water and lack of good grazing land, most of the Ute Mountain Tribe, in 1920, left their land that they had filed on as Public Domain in the Allen Canyon area near Blanding and Monticello, Utah. They went to the sub-agency at Towaoc, Colorado, fourteen miles southwest of Cortez where they now reside. The Ute Mounatin Reservation covers an area of 553,358 acres and is owned by the tribe and held in common. Like the Southern Utes, the Ute Mountain people are ruled by a council of seven. One member represents the approximate 150 people who still live in the Allen Canyon area, the council is headed by their Chief, Jack House. Two full time policemen and a tribal judge are elected to maintain law and order.

In 1958 there were 680 members of the tribe living in and around Towaoc. The population of the tribe increased quite slowly. Death among infants was especially high due to unsanitary conditions. There are education programs in health habits, and medical care. Welfare worksers of the tribe now train mothers to care for their families. Generally better living conditions have reduced the death rate in recent years and a rapid increase in the population is evident. The population today is estimated at approximately one thousand.

In 1940 the Ute standard of living on the reservation was quite low. But in 1951 their income from gas and oil rentals and leases, and an initial payment from a judgment fund netted about $32,000,000. The Ute Mountain Tribe's share was around $7,000,000. Each man, woman and child was given $500.00 cash to spend as he wished, and with $3,000.00 in credit which must be used in such manner as building homes, purchasing livestock, cars, pickups, and farm or home equipment.

The Ute Mountain Indians are now in the process of conducting a rehabilitation program. The basis of this program is the Family Plan by which each member of the family pools his $3,000.00 credit authorization for the purchase of things beneficial to the family and approved by the agency staff and tribal committees. Also, in connection with this rehabilitation program, efforts are being made to improve their tribal lands. They have purchased some good summer pastures near Gunnison and Mancos to be used in connection with the semi-arid spring and winter ranges. Pure-bred sheep and cattle and a small herd of buffalo have replaced "scrub" cattle and sheep. In recent years the Utes have purchased rights to the use of water from the Montezuma Valley Irrigation Company and are now in the process of irrigating some of their water-starved land. Like all people with newly acquired wealth, our Ute neighbors, have not always used their money wisely, but they have contributed over $30,000.00 toward rebuilding the Towaoc Agency. They used part of their funds to establish a small hospital and a health clinic to care for their sick. The clinic is still in use, but they also use the services of the doctors of Cortez and Dolores and the Southwest Memorial Hospital except for minor ailments.

The Ute Mountain Indians are still very religious and quite superstitious. While many of them attend the Community Presbyterian Church at Towaoc, quite a number still participate in Peyote rites which is a combination of both ancient ceremonies and Christianity. Both the Southern Utes. and the Ute Mountain Utes still participate in the annual three day Bear and Sun dances, but they no longer dance all night as their elders did. With the exception of some beadwork and basket weaving, the Ute Mountain Indians have very few arts and crafts of their earlier culture.

In the education field, the Towaoc Indian children were first taught in the reconstructed elementary boarding school at Towaoc under the supervision of the Montezuma County School System. Later all but the first three grades were transported to Cortez. For the last three years school-age children have attended schools in Cortez in order to take advantage of better teaching facilities. This year three large busses will be used to transport the 235 children to school. Although there have been no major problems with integrating the Ute children, there have been adjustments to be made for the Indians, non-Indians, and the teachers. Different backgrounds, rough jovial nature, and little, if any, discipline in the home have made it difficult for the children to adjust to the White Man's way. In the words of Mr. Alvin

Warren, Educational Specialist, "We can overcome all of these handicaps if we remember that each of our students is an individual, a human being, seeking to find prestige in his own culture." Our teaching must be geared to his understanding, that he may have the tools for learning and sufficient motivation for the will to do.

THE SOUTHERN UTE INDIANS

The Utes, or Utahs, are the oldest residents of Colorado, having resided in what is now Western Colorado for centuries. They are short, hardy, and muscular people with a tendency toward portliness around middle age. They are so dark-skinned that other tribes referred to them as the "black Indians." Little is know about them as their peaceful ways generated very little contact with the white man until the middle 1800's. They considered themselves the kings of the Rockies; they lived in the mountains and kept all other Indians out. Horses were acquired from the Spaniards in New Mexico around 1640. Even their children were traded for horses if they didn't have enough goods to trade. Between 1863 and 1868, they were assigned to reservations in Utah and Colorado. The treaty of 1880 established the Southern Ute boundaries in Southwestern Colorado. The Weeminuche band, now known as Ute Mountain, finally settled in Western Colorado near Towaoc, and the Northern Utes agreed to lands on the Unitah reservation in Utah.

In 1895, Congress passed an act requiring the Secretary of the Interior to make allotments in severalty of farm land to the Southern Utes as written in the Treaty of 1880. Those Indians who did not elect to accept their individual allotments would be placed on certain lands in the western portion of the reservation, which were to be owned in common. Due to the influence of Buckskin Charley and Severok, members of the Capote and Mouache bands accepted their allotments, which were made in the fertile eastern portion of the reservation near the Ignacio agency.

A lengthy period of land sales to white settlers followed the granting of allotments at Ignacio. However, in the remaining lands retained by the Utes, almost all the mature Utes at Ignacio have come into possession of farms and homes. Today the reservation consists of 5,291 acres of allotted land and 298,277 acres of tribal land held in common by 563 (in 1956) members of the tribe. The average family farm is around 40 acres. Alfalfa, wheat, and oats are the chief crops. Much of the hay and grain are fed to livestock with the excess being sold on the market or to their white neighbors.

Becuase of contact with the white man since 1900, the Southern Utes have had little time for observance of the old customs. They now live in frame or adobe houses which are modern. There are no longer any medicine men because the younger men have no desire to continue the traditional function. This has been due partly to the growing appreciation for medical care and partly because none of the younger Utes desire to live a life of complete abstinence which was necessary to becoming a medicine man.

In 1926 the Southern Ute Tribe adopted a constitution and by-laws. The constitution provides for a council of six members, defines the council's jurisdiction, membership and powers, and mades further provision for conducting all business concerning the tribe. One full-time policeman and a tribal judge are also elected to help maintain law and order. In an effort to make a transition from Federal to State jurisdiction, the Utes have now given the state patrolmen the right to come onto the reservation to apprehend any law-breaking Indians. With the beginning of local self-government, the chief of the tribe has become merely an honorary office.

The Ute Vocational School has been combined with the local public school and has had a very successful period of adjustment and integration. At first the Utes did not take readily to the white man's schools, but now there is a new high school building and a new junior high building will be completed by the fall of 1964. The installation of a kindergarten has helped the young Indians to make the big step into the world of education.

The Utes have not taken very readily to the white man's religion. Although there are many churches in the town of Ignacio, the few Southern Utes who have become church-goers attend the Catholic church.

In 1939 the Utes on both the Colorado and Utah reservations brought suit against the government for payment on acres of land in Utah and Wyoming and some sub-surface land within the Rangely Oil Field. As a result of winning this suit, the Southern Utes won more than $5,000.000. At first this was evenly divided among the members of the tribe in the following manner: $500 for each member to spend as he chose and $3,000 credit with the tribe to be used for some constructive purpose such as homes, livestock, etc. While some spent most of their money on whiskey, other families pooled their resources to buy new cars and worthwhile articles. New homes were springing up and in 1953 a group, dressed in native costumes, made a three-day tour of Denver to visit various types of modern homes. In one of the new homes, a woman member of the group remarked, "This kitchen is nice. We must all learn to cook with electricity. We want to get the best possible types of homes within our means so that our children may have better places to live than we did. I believe that a new day has dawned for my people."

Even though the Southern Ute has been living with the white man and adapting to his way of life for 64 years, he is still trying to keep a link with his old culture. Much progress has been made and will be made in the future with the foresight of the young men and women of the tribe.

JICARILLA APACHE

The total population of the Jicarilla Apache Tribe including all family members was 1,244 as of June 1957. Of the total 1957 population, about 1,184 live on the Reservation. The population of Dulce and the immediate vicinity is estimated at 1,200 persons. This includes about 850 or 70% of the Jicarillas on the Reservation and about 350 non-Jicarillas. An additional 20% of the Tribe live on the Reservation within a 10-mile radius of Dulce.

The Jicarilla Apache Tribe is youthful. Slightly over 57% of the total population is under 21; about 73% is under 31. Of the 502 eligible voters (over 21), 311 are under 40. Between 1920 and 1957, the population of the Jicarilla Apache Indian Tribe has doubled -- an annual rate of increase of less than 2%.

In general the Jicarilla Apaches are intelligent and have a great deal of individual ability. The Jicarillas are not a lazy or unprogressive people. Few are the groups of Indians who have made greater progress economically.

The Jicarilla society may be considered to be in the transitional stages, as are many of the other tribes. Psychologically and socially they have a behavior pattern which emphasizes the individual to such an extent that the group does not appear to get much consideration.

Younger members of the Tribe are more progressive and are attempting to abandon the traditional way of life. Yet environmental, social, cultural, and economic forces make it difficult.

In 1954 the government examined various Indian tribes' qualifications to manage their own affairs without further supervision, but it was found that the Apaches were not ready for the withdrawal of Bureau of Indian Affairs. Some of the reasons were:

1. Majority lack common-school education resulting in low standard of living, lack of business knowledge, and responsibility.
2. All traditional Indian element (superstitions and Indian customs), due to lack of education and contact with outside communities and public.
3. Older leaders are passing from the picture and new leaders have not developed.
4. Individually, they have had little experience in day-to-day business dealings.
5. Have been too reliant on the Superintendent and his staff to manage personal affairs.
6. Individuals will seldom take exception to group actions and cannot stand criticism by Tribal members.
7. Too few can manage their own personal affairs.
8. They are complacent and content to live for today.
9. Many feel that they have made out through the past years and have no desire to change, which literally means the Bureau managing not only their business affairs but supervising their livestock dealing, i.e., selling wool, lambs, and cattle, etc.
10. The individual has not learned to accept responsibility.
11. They do not realize the problems involved with withdrawal of the Bureau nor are they certain in their own minds which direction to go, what plans to make, nor do they have any program to follow.

It was made clear that many of these weaknesses are due to lack of training and education. The Congressional report points out that . . . . land resources in their present condition are not sufficient to maintain a decent standard of living for all members of the Tribe. . .Tribal economic position has improved mainly through the sale of oil and gas leases. There is a lack of proper and permanent housing facilities. . .and the economic condition of the individual has not improved and has possible retrogressed.

However, these Apaches, although backward in many ways, really are good people, easy to work with and they can follow leadership. Given a proper law and order code, court and law enforcement and proper housing one may expect rapid advancement especially by the younger people.

Glenn L. Emmons, Commissioner of Indian Affairs, has said, "Give the Indians education and opportunity, and increasingly they will demonstrate their high intelligence and marvelous skills."

The Jicarilla Apache Indian Tribe is an important member of the tribes forming the most southerly group of the Athapascan family. The Tribe presumably emigrated southward along the eastern flanks of the Rocky Mountains to establish their home in North-central and North-eastern New Mexico as well as southern Colorado. They also ranged into Kansas, Oklahoma, and Texas. After 1700 the Comanche Indians, pressed from the east by the settlers, crowded the Jicarillas into the mountains and canyons between Taos and Picuris.

The Jicarillas have been considered a semi-nomadic people, but the Spaniards found that they had already learned to clear fields and raise corn from the Pueblo Indians. The Spaniards considered the a semi-agricultural people.

PUEBLO INDIANS OF NEW MEXICO

I. Historical Background

The Pueblo Indians of New Mexico today number 17,545. They live in 19 Pueblo (villages), mostly in the Rio Grande Valley, from Taos to below Albuquerque and westward along the old Coronado Trail from Isleta to Zuni.

The Federal schools of the United Pueblos Agency have certain advantages not shared by those in some other areas: First of all, the area headquatters are near and this results in effective supervision of schools. The educational staff of the U. S. Bureau of Indian Affairs has taken full advantage of this circumstance to do excellent work in the supervision of instruction, cooperative curriculum planning and preparation of teaching materials, and in evaluation of the educational program. Second, the Pueblo people live in villages, immediately adjacent to which the Federal day schools have been placed. The Pueblo people have had for centuries a relatively stable culture and a closely knit community organization. As a result, the day schools have become closely integrated with village community life.

Not all of the Pueblos have day schools. Some have been integrated into the public schools. The children at Picuris, for instance, take a bus into Penasco and are in school with Spanish-speaking and English-speaking children. It is said that this has resulted in some friction -- the Indian parents feeling that there is some discrimination against their children.

One wonders if there might be fewer difficulties, actually, in the day schools. However, the far-reaching results might not be as successful as the integrated schools. If there has been "understanding education" in the integrated school, the Indian child might possible make a better adjustment in his future acculturation.

The Day School at Taos goes through the eighth grade. Then it is expected and hoped that they will continue in the public high school at Taos. Many of them still remain at the Pueblo at the end of their schooling. Though mostly they become farmers at the Pueblo, many are seen in Taos, working as laborers, in gas stations, as carpenters, etc. More and more of them are preferring to work in town for wages; it seems strange for a people who still make their annual trek to Blue Lake for their completely private ceremony! To this day, no one really knows anything about their ceremony at the Sacred Lake on Taos Mountain.

Many people do not understand why the Pueblo Indians have not left their Pueblo and gone to live in the white world. Understanding begins with the concept that, in Frank Waters' words, "Their Pueblo land is the Indian's universe in miniature, a center of his religion and belief, of his strength to live, and to understand and to enjoy life." There is a Taos Pueblo folk tale that if the Taos people should someday be forced to leave their homes, or if they should of their own accord give up their Pueblo and their land, then the world will end.

II. The Famous Pueblo of Taos

In August of 1541, when Captain Hernando de Alvarado, with a band of Spanish soldiers, rode into the Taos Valley, paralleling the Sangre de Cristo Mountains, he found a beautiful walled city -- the Pueblo of Tao (The s was added later by the Spaniards.). Upon entering the walled city he found two communal adobe dwellings four and five stories high. These dwellings, built on either side of a small stream, had small doors and windows facing the river or plaza. The only means of entering the stories above the first floor was by climbing small ladders made of logs. Besides the adobe dwelling, the pueblo also consisted of two temples, or Kivas. These Kivas were circular pits dug into the ground and walled with stones. The roofs were made of timber, brush, and earth.

The pueblo remained the same in appearance until 1612 when the Franciscan priests came into the plaza to build a church. When this church was completed, it was dedicated to San Geronimo (St. Jerome). It was in this church that in 1847 a group of Indians, urged on by Mexicans who wished to overthrow the American government, fought bravely for several days even though they were greatly out numbered in arms and manpower. The battle cost the lives of a number of Americans, including Acting Governor Bent, and the lives of 150 Indians.

Today the pueblo is much as it was in 1541 except for the walls which have long since fallen away. But communal dwelling and ruins of the church still remain. The Indians themselves, perhaps, are not as friendly and do not seem to the ordinary white man as cultured as they did to Alvarado. This is because their civilization grew and flourished until the white man came and with him came famine, sickness and raids.

The governmental system is much the same today as it was back in 1541. The town organization of the Tewa-speaking Taos group is set up so that the people from each side of the stream take charge of the pueblo government for one half the year and then, with a ceremony of transference, turn the affairs over to the officers of the other side for the remaining half of the year. Each set of officers consists of a cacique, his right-hand man, and his left-hand man. The cacique, or chief priest, as he is often known at present, is literally the "big boss" because it is his duty to see that everything goes right in the village. He is a messenger between God and his people. The chief priest serves for life and is highly honored by his people.

However, if you, a white person, would ask to speak to the person who is in charge of things at the pueblo, you would be referred to the governor. The governor is the chief "for the white" and is elected each year in January. When Lincoln was president, he presented each pueblo governor with a silver-headed cane of office, which is handed down from governor to governor within the pueblo.

The people, for the most part, farm or raise stock, depending largely on their crops and their livestock and upon their crafts for income. Other sources of income are timber and grazing rights. These funds are used by the governor for improvement of living conditions for the tribe: such as roads, drinking wells, and irrigation and soil conservation systems.

THE NAVAJO

The Navajo Country constitutes the largest Indian Reservation in the United States, encompassing about 24,000 square miles of rugged, semi-arid territory in the states of Arizona, New Mexico and Utah. The area is thus about the size of the state of West Virginia, and although the number of inhabitants is far below the population of even the smallest state, the Navajo represent the largest Indian Tribe in the nation. They have grown from 9,000-10,000 in 1868 to an estimated 100,000 in 1964.

Who are the Navajo? Where did they come from? It is only in post-Columbian time that they have been identified as a separate group, yet archaeological and anthropological evidence sees these people as having arrived in the Southwest sometime between 1000 and 1300 A.D. Evidently they did not arrive en masse, but came in successive trickles of migration from the north.

Research indicates the probability that the language group, the Nadene speaking peoples, migrated from Asia to continental North America across the Bering Strait between 3,000 and 4,000 years ago. Nadene has been identified, at least tentatively, as being a member of the Sino-Tibetan language family which linguistics designates as being ancestral to Chinese and Tibetan.

By the time 1,000 years had elapsed after the initial migration, population pressures with the concomitant changes in the ecology of the environment, plus man's curiosity as to what lay over the next hill, has caused further movement to the east, west, and to the south. Among the four major branches of the Nadene language family is Athabascan, and this latter, in closely related forms, is to be found common to peoples of interior Alaska, western Canada, the Pacific Northwest, and the Southwestern United States. In this last-named area are the Apache and the Navajo whose forebears had the courage and enterprise to make the trek.

The journey was not made overnight, but over generations, and it was necessary for the travellers to adapt to changing environments. They needed to become acquainted with different flora and fauna and circumstances, and could only gain knowledge through trial and error, reconciliation of previously gained experience with that which was new, or by drawing on the skills of those who had preceded them.

It can be assumed that this was a hunting and gathering culture that was on the move -- a nomadic one. Arriving in the Southwest, the newcomers became aware that they would have to make further adjustments and modifications, and what would be more natural than to borrow from the people who had already conformed to the conditions imposed upon them by the environment -- the Pueblos. So by the time the Europeans first met the Navajo, the latter had a highly composite culture. This in no way detracts from the stature of these people, but rather is indicative of the high degree of plasticity they possess. This is evident in the recent history of the tribe.

During the Civil War, while the attention of the military was diverted, the Navajos renewed their excursions against white settlers in the area, and as a matter of practical necessity, a force led by Colonel Kit Carson mounted an expedition against the Navajos and took prisoners in the neighborhood of ten thousand. These were interned at Fort Sumner in New Mexico until 1868, and then allowed to return to what was to become their reservation. The government issued sheep, goats, seed, and some implements to them, and in a short time these people had established the economic aspects of the culture by which we know them today. Again it was a matter of adaptation and flexibility in response to changing circumstances. It must not be imagined that all was smooth sailing, and that transition was accomplished without suffering. There was a tremendous amount of suffering -- mental anguish and material hardship, and these imprinted themselves on the culture of "The People," Dineh, as the Navajo call themselves.

In an effort to provide a small amount of general information relative to traditional Navajo life and culture, we include herewith a few brief comments in regard to housing, social and political organization, dress, religion, and related information. The generalizations are too brief and too vague to have any signification aside from providing a minimal quantity of background information to the reader who has had no previous experience with the Navajo Tribe and we hope, providing a stimulus to seek more detailed information through some of the published material listed in the bibliography.

The traditional Navajo abode is called a hogan. The hogan is most commonly a circular, hemispherical or conical structure, with a doorway facing east and a smoke hole in the center of the roof, but lacking windows. Nowdays, many hogans have windows, stoves, chimneys, beds, and, in fact, an ever-increasing number of Navajos live in houses made of logs, stone, lumber, building blocks, etc.

The term "family" is considerably broader in its application to Navajo society than the biological unit including merely the father, mother, and off-spring, although the biological family is the basic unit of social organization. Traditionally, when a Navajo man marries he goes to make his home with his wife's relatives, and his biological family becomes one of several such units and which are referred to as an extended family.

Within the biological family the woman is in full charge of caring for the offspring, cooking, butchering, caring for the food, and is responsible for discharging all other domestic duties connected with the home.

The children play a very active role in the economic activities of the family, and are given minor tasks to perform at the very early age. As they grow they are trained in the care of livestock, in farming and in other aspects of gaining a livelihood, as well as in ethics and tradition, and they begin to acquire property. The process of transferring livestock and farm land to the children continues until by the time the parents are advanced in years most such property is in the hands of the offspring, especially their daughters, and the latter's husbands.

Nowdays the husband often leaves his family for seasonal work off reservations, or a portion of the family group may spend several months of the year away from home.

Navajo men dress in what is commonly known as "western" garb including levis, western shirts, cowboy boots. Some still make and wear excellent moccasins. The women characteristically wear long fluted calico skirts and contrasting velveteen blouses often with a Pendleton blanket draped over the shoulders. Both men and women commonly wear varying quantities of silver, turquoise, coral, and abalone shell jewelry. Very few of the men still wear long hair.

Many of the Navajo have accepted the Christian religion. However, many still believe in their traditional religion which is not easy to describe. Their religion is concerned with this life -- not in preparation for an afterlife, and the code of ethics governing the behavior of men within the framework of traditional Navajo society is geared to the parallel attainment of harmony and order in human inter-relationships as a primary value.

The Navajo are undergoing rapid cultural change. Diversification of the Navajo economy, formal schooling, pressure for acculturation and a multitude of allied forces are working toward the individualization of the group. In his traditional Navajo society the individual functioned as a member of a group; in the dominant society into which he is being integrated, he is under pressure to function as an individual. Thus, a generalized description of Navajo social organization must, perforce, fit only a segment of the group and be a highly relative matter.

The recent history of the Navajo Tribe is one which depicts the Navajo people as a highly industrious, adaptable, and progressive group moving ahead jointly with the Federal Government and the states toward the solution of serious social and economic problems. The Tribe is keenly aware of the need for cultural change and is consciously thinking and planning for the future, utilizing Tribal funds for the promotion of its plans for improvement rather than distributing them on a per capita basis. The tribal leadership has taken the position that, if tribal money is invested in resource development, higher education for Navajo youth, and similar programs, the economic potential of the Reservation can be enhanced and the trained manpower necessary for full exploitation of increased opportunities can be developed. Distributed on a per capita basis, tribal funds would be quickly dissipated and little lasting benefit would derive from the small per capita shares.

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PART II

EDUCATION FOR THE INDIAN CHILD

"Education is only a tool and it alone cannot solve all problems, but it can help the American Indian to be independent, walk straight, and stand tall."

--Shirley Marcen
Adams State College
Alamosa, Colorado
1964

CULTURAL TRANSLATION

As one looks at modern English-speaking American Indians and his fellow citizens the non-Indian, one is more likely to be impressed with their similarities than with their differences. This is especially true with the tribes that do not have a distinctive native dress. In the most obvious aspects of the modern day Indian, their behavior does not differ greatly from that of the general population among whom they live. Generally speaking, they eat much the same kinds of food, according to their income, at about the same time of day. The husband is the chief breadwinner. Perhaps the practice of the non-Indian middle-class wife working outside the home is more prevalent than it is among Indian families; however, this practice is changing. Indian parents send their children to school with the belief, as of most parents, that education will assure the children an easier and more abundant life. Both groups use home and drugstore preparations for minor ailments and, if these fail, seek professional advice and help from faith healers and medicine men to the medical doctor. Within either of these groups you will find a greater range of variation in these practices than between Indians and their non-Indian neighbors.

However, there are differences in points of view and ways of behaving that made it difficult for members of one group to understand the behavior of the other. For example, no member of a hospital staff could understand why the Navajo mother had not picked out a name for her expected baby. Public Health nurses are sometimes shocked by what seems to be a complete indifference of Indian mothers to the health of their children who are out barefooted in the snow. A staff of the U. S. Bureau of Indian Affairs Relocation Office who went to some trouble to get well-paying, off-reservation jobs for a group of young Indians could not quite underatand why a number of them soon returned to their home villages where there were no jobs and very poor living conditions. Educators and employers often feel frustrated at their failure to get some Indian students and employees to report at the appointed time. Welfare workers are frequently upset by the sight of a TV antenna on the roof of an adobe home, or the possession of a car or some other "luxury." This all falls under culturally derived differences in values and patterns of perception.

When we work with Indian people everyday, it is easy to forget that they are members of a different culture. We expect them to behave and act as we do. If they do not we react with moral disapproval and tend to apply various kinds of sanctions in order to get them to conform to the dominant cultural pattern. We, as educators, are always lamenting the lack of concern of Indian parents about regular school attendance and progress of their children. A common topic of discussion in educational meetings is how much force should be used to assure the interest and support of parents. There is a tendency, when members of the culturally different groups have highly visible biological characteristics, to blame questionable behavior on some innate genetic factor.

There is a great body of opinion and belief about the characteristics and abilities of Indians. Most of it is sheer nonsense based on casual observation and personal judgment. Be these fact or fiction they do much to determine, justify, and explain the behavior of Indians to the non-Indian. You hear such expressions as, "a thing that is typical of the race." They enable employees to make such contradictory statements as, "You can't depend on an Indian." Then in the next breath say, "They are a friendly people and very easy to work with."

If out on the Navajo reservation you always see them on the move, their meanderings are ascribed to a nomadic spirit. If the Indian child does not achieve in school, as many of them do not, the reason is said to be that they are slow-witted and can work better with their hands. If an Indian is late for work, it is remarked that he belongs to a group that is irresponsible and undependable. If eight or ten persons in a Navajo family are found living in a hogan, it is said to be because they are very gregarious and don't mind crowding.

The expression is often heard, "Indians have no ambition." People using these expressions are seeking an easy way to rationalize the status quo. If innate characteristics, as these people believe, provide an easily understandable reason for the status of our so-called "Indian Problems," then, if this is true, the Indian people of the Southwest are already in the positions and relationships they are best suited for, and any attempt to alter "the old way" would only result in bringing dissatisfaction.

There are almost as many studies as there are stars in the sky to validate "scientifically" some aspects of the stereotype of the "Indian" as it is held in the United States. Many of them are of doubtful quality and value. One interesting study pointed out that American Indians were not aggressive and caused little trouble for the reason that they lacked "that inborn feeling of inferiority to the white race that causes the Negro's resentment of segregation and inequality." Among other studies were found such statements as: (1) laziness, will only work when absolutely necessary; (2) lack of a sense of time, always operating on "Indian Time"; (3) artistic ability, love of bright colors and excellent use of hands, but no creativity; (4) contentment, this is evident in lack of urge to change; (5) stoical, showing austere indifference to joy, grief, pleasure or pain; (6) gregariousness, as shown in their crowded living conditions; (7) musical, an innate sense of rhythm; (8) untruthfulness, which reveals itself in a type of series of "little white lies"; (9) lack of thrift, spending money for pleasure rather than for the necessities of life; (10) childlike, unsophisticated in the ways of life; (11) untrustworthy, sly and cunning; (12) uncommunicative, tending to withhold information, and expression of opinions; (13) stalwart, showing great stamina and endurance of pain; (14) affection, a great love for their fellow Indian; (15) mentally slow, a tendency to be slow thinking; (16) slowness, refusing to be hurried; (17) sensitive, extreme sensitivity to shame and insult; (18) no respect for authority, as imposed by law.

Anyone, who has worked with and observed Indians, will recognize that underlying some of these generalizations are ways of acting that can be observed among some members of some tribes. The weakness in so many of the studies lies less in the observation than in the inadequacy of the assumptions on which the generalizations rest; for example, that there is an "American Indian" of which the population observed was a representative sample; or that complex. Also, the investigators failed to realize that they were evaluating another culture by their own bias and values. None of the generalizations above is demonstrably due to genetic inheritance. Surely, some of the observable traits are true of some Indians in some situations. Many Indians arrive late for appointments. So do many of the non-Indians. Older members of some of the tribes resist change but so do many of our rural groups. Those of us who have attended meetings where tribal leaders speak - have listened to a seemingly endless succession of speakers - can be forgiven for believing that Indians have a fondness of "talking pretty and long." But the behavior patterns pointed out, like all social behavior patterns, are learned responses to types of recurring situations and are not innate. They vary considerably from person to person and from time to time.

Most generalizations made about the behavior of any large groups of people are almost certain to be oversimplifications. They usually do not take into consideration the motives that underlie the overt actions. Too, the observers tend to evaluate behavior without realizing that as the result of participating in another culture, the persons observed may have quite dissimilar ideas and be acting in accord with them.

When you hear someone say, "Indians are lazy," he is repeating something that he has heard or is drawing a conclusion from his own observations. Furthermore, the statement itself is not a description of behavior. In our dominant society the word "lazy" is a value-loaded symbol. What, in effect, is being said is that Indians have an attitude towards work that is different from mine, and since mine is right and good, theirs must be wrong and bad. What is disregarded is that the behavior of the Indians being observed, insofar as it is actually different and is not merely thought to be, may be derived from another set of attitudes and values in terms of which it is "right and good" and any other behavior would be "wrong and bad."

Here we propose to examine a few characteristics deriving from historical circumstances of the Indian people of the Southwest that may be influential in determining their behavior involving relationship with members of the dominant culture. Insofar as possible, attention will be centered on prevalence of characteristics ascribed to Indians that would be greater than among a comparable group of non-Indian; always keeping in mind that any given individual Indian may have all or none of any combinations of these characteristics, depending on his unique personal experience. So may any given non-Indian have similar characteristics.

LANGUAGE BARRIERS

Cultural analysis is still in its infancy, and the complete study of the relation of language to cultural contexts is likewise a thing of the future. But for the present let us point out the most obvious differences between, for example, the Navajo and his English-speaking neighbors. Inability to speak English, or to feel at ease with it, is a powerful factor in the tendency of many Indians to avoid any but the most necessary contacts with non-Indians. Isolation on some reservations makes unnecessary the acquisition of English. This language difference is both a cause and an effect of isolation and, as such, exerts a strong influence in the perpetuation of the old way of life and retarding the Indians' integration into the Anglo group.

There are places on Indian reservations where a person can live fully without knowing a word of English. However, far-reaching economic and social changes are taking place in the reservation world. Today an expanding network of paved highways crisscrosses most reservations. Trading post settlements are being transformed into typical American crossroads towns with their clusters of filling stations, cafes and motels. This forces upon most Indians some knowledge of English as they find it both convenient and desirable, since they inevitably are drawn into relationships with such people as governmental agents, potential or actual employers, or school teachers who may not know their native language. Above all, English is the language of the classroom; the schools are a channel through which its use is constantly being facilitated. Thus, you see many strong forces are operating to promote the acquisition and use of English.

Most Americans are monolingual and are annoyed and sometimes become suspicious or angry when, in their presence, speakers of another language begin to "jabber" in their own vernacular. If laughter accompanies the conversation they feel they are being laughed at, or "talked about." So the use of another language than English, quite apart from any effect it has on intergroup communication, is something of a barrier to the establishment of good relations. How many times have you heard people say: "They go to school to learn English, why don't they speak it?" As in a situation where Mexican-Americans use their native tongue you will hear: "If they don't want to learn English, why don't they go back where they came from?"

Using another language than English draws attention to differences between two groups. It then becomes a "we" and "they" and makes to obscure the tremendous similarities between the two populations and to focus attention on the relatively minor differences. You will find a widespread notion in the Southwest that many Mexican-Americans and American-Indians pretend not to know English even though they actually do. There are occasional instances where this is true but experience teaches that they are not so common as many people think. The idea, whether true or not, gives a handy escape for the lack of establishing good relationship and justifies any irritation felt by making it possible to place the blame for the communication block on the "they" group.

Another prevalent notion, and very amusing, is that there is a correlation between the volume of sound and the ability to understand a language. You never hear anyone state this belief, but its existence can be observed by English-speaking people trying to communicate with a person not knowing the language. This is especially true with a teacher who has not had experience in teaching students using little or no English. He will begin in an ordinary tone of voice. When it becomes apparent that he is not being understood, he repeats his remarks in a louder tone. As the volume of his voice goes up - so presumably does his blood pressure - the bilingual students make greater efforts to understand the significance of such vehemence, but try as hard as they may their efforts cannot be substituted for a knowledge of English. All they end up understanding is that surely they have missed something very important. The teacher is also frustrated by his failure to communicate, even by shouting, and may be strongly tempted to jump to the conclusion that his students are stupid. This is particularly true if he has some preconceived idea about the mental capacities of the group to which the students belong. Neither the teacher's action nor the resulting rationalization of failure does anything to improve the relationship between the teacher and his students.

We, as Americans, feel that it is an obligation for speakers of other languages living here to learn English. Since English is the language of the country, it is felt that they should make an effort to conform to the demands of the dominant culture, particularly in the use of the language.

From a moral and practical standpoint, this expectation is a reasonable one. For the sake of unity, acquiring the attributes that will enable them to be designated by the term "we" is to be expected. To fail to do so, as felt in our society, is to perpetuate differences that are thought to be very undesirable. The ability to use English opens doors to many opportunities that are unavailable to the person who speaks only his native tongue. It will be found that income, freedom from discrimination, social acceptance, and similar indices of desirable status are roughly correlated with the ability to use English.

This being true, the English speaking person in the Southwest cannot understand why the Mexican-American and American-Indian as groups are not more highly motivated to learn English. This lack of motivations and the seeming inability of some people to understand or to speak English is believed due to a form of hostility. The reasons for the persistence of the use of the native language of many of the Spanish-speaking and Indian people in the Southwest are many and complex. Isolation of Indian reservations is definitely a factor. Also, the concentration of

Spanish-speaking people in certain areas is a contributing factor; so is the closeness to Mexico and the ebb and flow across the border of large numbers of people from areas where English is not spoken. Ineffective means of teaching English, as a second language, in our schools cannot be ignored as it results in the early dropouts of many of our bilingual students. Psychologists point out the individual's feeling of security that comes in being able to lapse back into their own language. Other reasons too numerous to mention could be cited. But the basic reasons for this lack of motivation, be what they may, still remain that the inability to use English well in an English speaking country, is a differentiating factor, leading and contributing to the persistence of feelings of mistrust, dislike and overt disapproval between dominant and minority groups. This hinders the effective means of communication and the mutual advantageous relationships between members of the two groups.

Even though their work is entirely with speakers of another language than English, many categories of professional workers are not expected to know how to speak the native language of these people. To mention only a few of these, there are municipal and county officials, welfare workers, public health nurses and doctors, probation officers, and school teachers. Looking at this from the English-speaking person's point of view, it brings about some measure of ineffectiveness in their work, poor cooperation with those with whom they work, and much additional effort to achieve a given result. For the non-English speaking person, it could mean inadequate service, his lack of understanding of his rights and privileges with respect to a given agency, and above all the curtailment of experiences that might help him to adjust and be happy in the framework of the dominant culture.

There are arguments for as well as against the use of the native tongue in an English-speaking community. In areas where little English is known, the native language will have to be used if you expect to have effective communication. This means that some of the personnel in agencies offering services such as medical care, welfare, educational services, and employment will have to speak the native tongue. This is especially true when you are dealing with older people whose personal experiences and unfamiliarity with the ways of the dominant culture make communication in English difficult. It has been found economical in both time and effectiveness of communication to use the native tongue. The use of native speaking registrars and attendance officers has worked out very well in many public school districts enrolling large numbers of any one tribe of Indians. One delicate decision to make is just when to use the native tongue and when not to use it. With individuals who speak English well, it is better not to use the native tongue in the early stages of a relationship. Even though as a group they may use their native tongue among themselves, they resent being addressed by a non-Indian stranger in their own tongue. This is especially true with young adults who have taken on many of the values and attitudes of the Anglo culture. This is doubly so if the English speaker speaks the native tongue poorly.

Each language spoken embodies and perpetuates a way of life. The speakers of a common language are partners to an agreement to see and think of the world in a certain way. Our native language provides for each of us a way of isolating and categorizing certain items in our way of life. The world about us can be structured in many ways, and the language we learn as children directs the formation of our particular structure. Language is not a cloak following the contours of thought. Languages are molds into which infant minds are poured. The goal of understanding the relationship between man's language and his experience of the world has been a challenge to linguists, psychologists, anthropologists, and philosophers alike.

This matter requires empirical exploration as we work with students from other cultures and who are learning to speak English, as a second language, in the fast moving space age in which we live.

Researchers have found language influences the total psychological makeup of man even though they have not proved its exact role in thinking and logic. However, it seems reasonable to believe that the habitutal patterns of the mother tongue have a strong effect upon the behavior of an individual. Going beyond language proper, the gestures accompanying speech are also conventionalized, and the vividness and variety of gesticulation differ from one culture to another. Take, for example, the expressive shrug of Spanish-speaking people, and the pointing out of a direction with pursed lips and chin by the Navajo. A nod of the head may mean yes or no and a body posture which simply indicates proper respect in one cultural setting may be interpreted as hostility in another.

In the Southwest the frequently heard assertion "if Aristotle had been a Mexican, our logic would have been different," should be examined and analyzed by teachers in this area of the United States. An example of this thinking will be found in that we, as members of the dominant culture, are oriented toward the future. Many times we think our American Indian and Mexican-American neighbors live "in" and "for" the present. In English a clock runs, while in Spanish it walks, el reloj anda. In the repetition and proliferation of small differences, as these, lies the basis of large misunderstandings between people of different cultures. We reach into the categories of our own culture and come up with generalizations about other races and their way of life. Thus we label another group of people as untruthful, irresponsible, or lazy, or we assign other stereotyped characteristics. We feel the behavior of the "they group" is understood. Each of us tends to see his way of thinking, believing, and behaving as right, natural, and proper, and any deviation from those ways as strange, bizarre, and uncomprehensible. So you can see that many times our so-called "understandings" are not conducive to the establishment of either deeper and more accurate understandings or mutually satisfactory relationships between "us" and persons who are culturally or subculturally different.

A knowledge of another person's culture is no magic talisman by which teachers can solve all the problems that beset us as we deal with other culture and language groups in our schools. But a knowledge of another culture can be a useful asset which, possibly of little utility by itself, may have the property of making other knowledge and skills more effective in their application.

INDIAN TIME

If you have spent any time on an Indian reservation, you will hear the expression "operating on Indian time." Indian conception of space and time are hopelessly confusing from a point of view of the dominant society. To people familiar with the Indian country they know an "Indian mile" may mean a mile, five hundred yards, or five miles.

Anthropologists report that language is the essence of culture. There are no people anywhere known to be without a language and the language always includes expressions to describe those things that are considered important to the people speaking that language. In the Sioux, and many other Indian languages there is no word for time.

Both "time" and "space" affect the behavior of everyone in Western culture. "Time," especially, causes us to be oriented toward calendars, dates, "the course of history," time tables, clocks, time wages, race against time, accounting, compound interest, actuarial statistics, annals, diaries, the age of rocks, of the earth, of the solar system of the universe. The books of Genesis gets the cosmos launched in 4004 B.C.. Time impels us to look ahead in planning programs, schedules, appropriations, balanced budgets. Our love affair with time causes other cultures whose languages permit a less hurried outlook, as the American Indian, to regard us as somewhat mad.

White people that work with Indians are often heard to complain, "Indians have no idea of the meaning of time." "Pretty soon" may be in ten minutes or ten hours. This is also true of many rural non-Indians; their lives are less hurried than the city dweller. Most white people, however, are time conscious, from the time they are infants fed on schedule, until they come to their final resting place.

Modern day Indians are discovering the importance of "clock time" in getting along in life away from the reservations, and many who cannot read or write have learned to tell time. If a job is important to an Indian and he cannot depend on "sun time," he will often arrive an hour early. This has been found to be true of Indian children who really want to come to school.

An interesting and amusing article appeared recently in which the author made the point that many cultures worshipped certain gods publicly and other gods privately. In American culture, he pointed out, many of us avow Christianity and publicly worship Jehovah, whereas an even larger proportion of us actually worship the pagan god TIME. This he proceeded to prove, by pointing out that most of us wore the symbol of TIME in amulet form as a wristwatch, or a pocket piece. Each home of a TIME worshipper has an icon, with a clock as the godhead. TIME worshippers consult their oracle frequently throughout the day and sometimes throughout the night, especially when planning anything of importance. In all of this we treat the god TIME with the same ceremony that an aborigine observes in respecting or regarding whatever fetish or symbol is part of his cultural background. The article, of course, was a satire, and the author had his tongue in his cheek. However, he unconsciously pointed out a contrast between Indian and non-Indian culture which is important consideration for educators.

We as Americans are a "time worshipping" civilization. This is so obvious to us that we never stop to think that it may not be equally as obvious to Indian children. We realize that TIME is not the most desirable of our deities, but anyone who is to succeed in the everyday industrial American life has to recognize that he must rule his life by TIME. Anyone who fails to do so has trouble fitting successfully into our culture.

There are probably no others quite like us in this respect. We haoe taken the recurring four seasons of the year and divided the cycle into 365 days and each of these by a clock into 24 hours, each hourly unit into minutes, and each of these further into 60 seconds. And currently in our atomic age, we find that even the segmentation of this phenomenon we call time to the smallest degree is not yet small enough; in the language of the atomic scientists a period of time called a jiffy is useful in their calculations--a jiffy being the length of time it takes an object moving at the speed of light to travel a distance of one centimeter. When we think of light traveling at the rate of 186,300 miles per second and a centimeter as being a little less than 2/3 of an inch, we can get some slight hint of the refinements of time in our life today.

All this represents a cultural acceptance of a factor in life that is foreign to Indian thinking or Indian experience. The sun has been his alarm clock, the seasons furnished a calendar of sorts, which dictated when to plant and harvest crops, and when to hunt. The weather controlled the growth of his crops and the movement of the animals, not man-made time. Scanning the research that has been done on the subject, reveals that there were no North American indigenous cultures where people did the same thing from morning to night, day after day, year after year. If a job that their existence depended upon had to be done, it was done intensively for many hours, or many consecutive days. When it was finished the workers might rest, or dance, or play, or celebrate in one way or another, in the period before the next important job had to be done.

But the moment an Indian comes in contact for any period of time with non-Indians all this changes. The small Indian child entering school is expected to be there at a certain hour in the morning, his school day is regulated by a bell geared to a clock, he returns home at a set time each afternoon. He is judged not "socially acceptable" and is a poor school citizen if he is tardy or absent often without an acceptable excuse.

One of the easiest things in the world is to condemn people for being different from what is currently "socially acceptable" without understanding or, if possible, appreciating the reason for the differences. Do teachers stop to think or try to find out by first hand observation why their children are not time conscious? There is a story that tells of a teacher of Indian children who passed away after a nervous breakdown. On her tombstone was inscribed:

"HERE RESTS MRS. JONES. SHE TRIED TO HURRY THE NAVAJO."

There is a lesson to be learned from this story that should be of value to educators of Indian children. They should understand why the child is the way he is before starting to pour him into the mold that has been set up as desirable, for a good school citizen, in non-Indian society.

A big difficulty in running a school where many Indian children are enrolled is the fact that many of the families do not have clocks which would enable them to coordinate the rising and feeding of the children with the arrival of the school bus which is to take them to school. It would then become clear that one of the first things which must happen to Indian children who are expected to adjust to school life, is to become oriented to the importance of our clockwork civilization. Emphasis must be placed on the importance of time in non-Indian culture, and this brought to the children in actual lifelike classroom activities. Early in his school career the child should be taught to tell time. In a classroom of Apache first graders the teacher was talking to a guest when from the back of the room exploded the word, "Recess." This child had found a definite need for knowing how to tell time. Recess was a very important time of day for him.

Making the child time conscious is easier than doing the same thing for his parents. It would be interesting to see what could be accomplished by a dozen inexpensive clocks, in Indian homes, to promote in the families the regularity which educators consider important.

Like other aspects of our culture, our attitudes toward time are so much a part of us and seem so right and natural that it is difficult to understand how anyone could have a different point of view. It would be very educational to be able to know just how anyone reared in Mexican-American or American Indian culture would interpret the old story of "The Grasshopper and the Ant" as sieved through the values of their own culture.

The story as told in books is already interpreted from the Anglo point of view. Attention, throughout the story, is focused on the ultimate fate of the improvident or negligent grasshopper and - although only temporarily - on the survival of the hard working industrious ant. By touching lightly on the joy of living and the lighthearted enjoyment of the grasshopper during his long summer and emphasizing what befalls him as the result of his thriftless ways and his unconcern for the future, the story illustrates beyond doubt the wisdom of the Anglo attitude towards the use of time and the accumulating of material possessions. But think - if you changed the emphasis - it could be made to illustrate the famous expression by Edith Wharton, "I live in the moment when I'm happy."

Looking at the story through the eyes and the hearts of people coming from a culture where the joys of today far surpass the anticipation of saving for a "rainy day," the grasshopper would be considered eminently sensible as he lived each day according to the imperatives of the day, enjoying what may be enjoyed, enduring what must be endured, "que sera, sera." Comes the winter, bringing more than he can endure, and he perishes, he has lived abundantly and happily albeit briefly. The foolish ant, with an eye to the future, toils throughout the summer, storing up food for the coming cold. He survives the winter. But what is his reward? He is blessed with another summer of hard work "if he should live so long." The version one prefers depends on his values as measured in terms of his own cultural yardstick. Which version of the story is better? There is no way of proving that one version of the story is better than the other, or that one point of view about the relative importance of present and future is better than the other.

CULTURES DO NOT MEET BUT PEOPLE WHO ARE THEIR CARRIERS DO

We live in a fast changing world. A person in his seventies living in the United States has lived from the days of the Conestoga wagon drawn by oxen to the astronauts' trips around the world. Closely related to group attitudes toward time are the views of its members about change and progress. We value new things just because they are new. American women want to dress "in style" and abhor "out of style" clothing. Each year brings new automobiles with as many as 85 "important new improvements" each.

We value new things because we feel they are somewhat better than the old, and this progress becomes associated with the fact of change. From the time we are children we are taught that change is good and progress inevitable.

Many of our American Indians have lived on reservations isolated from the mainstream of so-called civilization. The future, if envisioned at all, was seen as an extension of the past. World War II changed much of this as the young men of the tribes returned bringing with them glimpses of the outside world back to their homeland. Now it is the less unacculturated members of the tribe - the old persons that fear what progress will bring - who resist change. So it has always been with people since the beginning of time - the conflict between youth and age. The elderly resist change, and youth rushes toward it. As a group American Indians may not rush towards change but with the coming of good roads, modern modes of travel, schools, television and radio, it will be impossible to keep the old way of life intact. The life and economy on most Indian reservations are heavily geared to, and dependent upon, the outside world. It cannot be denied that no aspect of encroaching Anglo-American culture has had a more profound effect on Indian life in recent years than the advent of all-but-universal schooling for children from the various tribes. In fact developments, with such tribes as the Navajo, have come so recently and so rapidly that their ultimate effect upon the life of the reservation is not yet determinable.

WORK. FOR WHAT?

To many American Indians work is not as it is in Puritan tradition, a good thing in itself. Their values do not lead these individuals to consider work a good thing in itself. We, as members of the dominant culture, consider ourselves as doers. As a group, too, we see industriousness as a virtue. One of the worst things that can be said of an individual is that he is lazy. Idleness is thought to be close to sinfulness. To find out the answrs to the question, "Who is that man?" you will receive the anser "He is a carpenter." or "He is a teacher." To know what a man's work is, is usually answer enough. Many people are reluctant to retire, even when they can afford to do so, because in our culture we need the security of "something to do."

Objective recognition by others that one has attained commonly esteemed goals is deemed success by many. Ideals for success extend across generations as parents strive to give their children "a better chance than I had."

Members of the dominant culture, as a group, pride themselves on being "practical" and on the "know how" of "getting the job done." Just who among a group of teachers would question the validity of such a statement as "it is better to be practical than impractical," or "it is better to be efficient than inefficient."

Now what about working with a group of people who do not have these same ideas about work and success. Among many Indian tribes you do not ask "Who is he?" As with the Navajos, for instance, they may ask: "Where do you come from?" "Where are you going?" These are questions that may seem impertinent to some non-Indians, but they are conventional greetings in Navajo culture. The question, "How old are you?" is one that is likely to follow for the Navajo needs this information to know how to address the newcomer. In the past it would have been almost impossible to identify a fellow Indian by telling what he did. Work for survival was the lot of everyone and one did what he needed to do. And, indeed, why do more; more game than you could eat would spoil, and if you had to move how would you carry your possessions. When the results of one's work were products that had to be consumed or utilized, work beyond the ability to consume or use was meaningless. Working for monetary compensation has changed this attitude, but many Indians still do not have the same motivation to work and save as do his non-Indian neighbors.

It is difficult for the non-Indian to understand why some Indian people seem to have no "ambition," and why they do not have the drive for success as do the bulk of our population. The non-Indian is likely to interpret this in his terms and in accordance with his values and call all Indians lazy, ignorant, indifferent, or some other characteristic which he regards as undesirable. Employers complain that when an Indian is through with one task he will sit and wait until he is told to do something else. This is almost at complete variance with the Anglo notions of how employees ought to behave.

INDIAN VALUE IN A WHITE MAN'S WORLD

Clyde Kluckhohn, late Professor of Anthropology at Harvard University, was one of the most creative anthropologists America ever produced. He is the author of many books including The Navaho, Navaho Means People and Children of the People. In 1955 he wrote "Indian American Values and Culture Change" for Advance Congregational Christian Journal, (Vol. 147, pp. 13-15). In this article he summarized very efficiently the problems of acculturation faced by present day American Indians.

> Most Indian American groups require ample time for a steady but sympathetically guided process of transition. I do not in the least agree with what I call "the zoological park philosophy for Indian Americans": that which would keep them shut up on reservations "with all their quaint customs" and "preserve" their cultures at all cost. This is not only rank and immorally romantic sentimentality; it is also an obvious impossibility.
>
> The matter of timing, I repeat, is crucial. These so-called aborigines must not be pushed too fast toward Christianity, nor toward "education," nor toward improved public health practices,

nor toward anything else of any sort. A forced pace may indeed bring quick results, but the ultimate cost is tremendous.

Of course, they should know how to read and write the English language. Yet if this is made too important a goal per se, an objective to be attained at the price of a violent break with everything in the past, the result is bound to be disruptive, since the needful continuity of life and its relationships will have been destroyed.

Indian Americans frequently acquire our technology (including our verbiage) without having either absorbed or even become aware of our values, which put certain curbs upon our love of gadgets, our "materialism." Their own cultures having been largely demolished, however, they do not integrate themselves with ours save on the most mechanistic levels. They gain from us only the externals, the "objective" parts of our culture, without its total fabric. Hence, in effect, they have for a time at least no culture at all. And a people without a culture is in the same desperately isolated straits as an individual who has lost his memory.

While such generalizations apply to the Indian Americans as a whole, there are cultural differences within the total group of which account needs to be taken. There are many Indian American cultures more or less similar to each other. Each of these has a value system of its own, partly quite distinctive and unique, partly a repetition and a rephrasing of value judgments that are either humanly universal or are at any rate characteristically Indian American.

An instance of this cultural phenomenon may help to clarify the discussion. Most Indian Americans rebel, whether consciously or unconsciously, at the white man's "individualism," though they themselves have had their own kind of "individualism." Their culture made room for considerable autonomy so far as each personality was concerned. Yet the individual carried on his existence within an extensive network of formalized personal relationships that reached out beyond the biological family into the framework of his community or tribe. Herein lay his psychological security, for he could express and fulfill himself with confidence in this particular setting. That is why life in the wider society or in the artificially created environment of school or mission has been so disrupting and demoralizing to Indian Americans. Outside their limited but natural orbit, they are quite literally "lost."

Besides the cultural variations among these people, especially in the realm of values, there are almost as many different situations and conditions as there are tribes. One group may be relatively prosperous while another lives in chronic destitution. Yet another may be experiencing radical economic changes for the first time within tribal memory. This tribe has felt a comparatively gentle pressure from the whites, but that one has been exploited, betrayed, despoiled—and is bitterly aware of it.

Because of these variegations, both cultural and economic, and because of conditions brought about by policies in the past, the missionary or educator or physician or government employee who works among Indian Americans today has an extraordinarily sensitive reconnaissance to make, a very demanding calculus to perform. He must inquire into cultural attitudes and practices, into both the ancient and the prevailing value structures, into the present situation and into historical backgrounds. He has but few general rules to guide him and some specific cautions to save him from serious mistakes. The task requires intelligence, knowledge, industry, and dedication.

Let me conclude with a "case history" from the Indian people whom I best know and love—the Navahos. The account will be necessarily brief; yet, by focusing upon a single tribe, it may be possible to make what has been discussed in general terms appear considerably more graphic.

Personal and social disorganization is presently rampant among the Navaho people. This is due partly to certain concrete facts. The Navaho country is heavily overpopulated and the range is over-grazed. Few Navahos have the occupational skills to compete with white people.

But that is not the worst of it. Navaho culture is becoming an ugly patchwork of meaningless and unrelated pieces, whereas it was once a finely patterned mosaic. This is due primarily and chiefly to the disintegrative power of alien ideas and values. The Navahos recognize and respect the strength of the dominant American culture. Many of them agree unreservedly that their tribe's only hope of salvation rests in mastering the language and way of life of the larger society.

Yet when the qualities and traits of another culture are learned superficially and are picked up piecemeal, while the underlying concepts and values of that culture remain unabsorbed, the learners feel uncomfortable. They sense the lack of fitness in their relationships, they feel that they do not belong, and they miss that moral support that is needed if they are to have a real part in any American life-way. Being introduced, for instance, to the external side of the white man's individualism without being shown and taught the inner checks and balances that accompany it, the Navahos are plunged into confusion.

The substitution of individually paid labor for collectively organized reciprocal services is not in itself a thing to be deplored. But unless there is a commensurate growth of individual responsibility to replace the lost sense of collective interdependence, the entire structure of cultural values is distorted, emotional maladjustments ensue, and personal relationships are increasingly demoralized. A widespread resort to escape mechanisms, especially to alcohol, is symptomatic of the resulting social friction and moral decay. For when human groups with different cultures and social structures and with value systems that differ in important respects are out of internal sympathy with each other, everything goes to pieces. The linkage is so fundamental that when a social organization can no longer hold itself together, morality disintegrates at the same time.

The influence of white American ideas and values is, of course, not entirely a matter of choice on the part of the Navahos themselves. They are torn willy-nilly between their own former standards and those that are urged if not actually thrust upon them by teachers, missionaries, and others from outside their tribes. Some of these outsiders have conscientiously endeavored to take account of individual Navaho customs and even of the external patterns of Navaho culture. But when, as too often has happened, no account of underlying values has been taken, the outcome is pronounced deplorable by Navahos and whites alike.

An appreciable number of Navahos are so confused by the conflict between the precepts of their elders and the teachings of their white preceptors that they tend to set aside the whole problem of morality (in the widest sense) as either meaningless or insoluble. Their only guide to behavior, for longer or shorter periods in their lives, is that of pure expediency in meeting the exigencies of each immediate situation. With the loss of predictability in social behavior and of dependability in personal relations, the breakdown of satisfactory social life is well along its way, while the absence of generally accepted values among individual members of the tribe leads to moral chaos. This applies equally to the Navahos and to other Indian Americans.

Orderly and creative group life prevails only so long as an

> over-whelming majority of individuals find enough satisfaction in socially approved goals and in culturally acceptable means for their attainment to make up for the constraints that group life imposes upon uninhibited response to impulse.
>
> There is much in every way of life that to an outsider appears more or less chaotic. But if the behavior patterns on the whole make sense to the participants in the light of their own values, an adequate measure of stability is guaranteed. Disorder and amorality take over only when the participants begin to feel that the ends and means of their culture are no longer unified in an authoritative value system.
>
> Certain major Navaho value premises are essentially incompatible with certain major value premises of our American culture. If those who propose to alter Navaho culture were more clearly aware of and could make more explicit to the Navaho exactly what these basic divergencies really are and what they actually entail, the transition would at all events be eased. It may be, however, that in the long run a resolution of the difficulty might better be sought by reference to a scale of cultural value assumptions that transcends the present level of both cultures—one that, from the broadly human standpoint, is both more ultimate and more nearly universal. To see that people all over the world, speaking different languages (in both the literal and figurative sense), actually have and are aware of the selfsame needs and that they value the same fundamental objects and objectives, is to prove that one has seen beneath the superficial cultural veneer into the very heart of the human problem.

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Culture has its locus in the personality of people, and personality is built up by successive layers of experience. New layers may be added; old ones cannot be taken away, although they may be greatly compressed. When people move, their culture goes with them. And if one wishes to know the "why" of a people's behavior, he must look to the old environment as well as to the new. If those who intervene to change a culture in some of its particular aspects do not comprehend the dynamic interrelation of all its parts, they may breed confusion so disastrous as to offset every beneficent change they have tried to bring about.

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COMMUNICATION IS THE KEY TO LIFE

LISTENING
SPEAKING
READING
WRITING

This section of the bulletin is a brief outline on language learning. It is intended to give you the basic information as a framework upon which to build your knowledge in this field. A bibliography is given so that you may furher your knowledge if you are interested. If you are teaching a second language, take advantage of all the new learning techniques and materials in the field of Linguistics.

Educators are turning more and more to the findings of modern linguistic science for accurate and systematic ways of teaching English to speakers of other languages. Linguistic science has taught us (teachers) that language is a spoken phenomenon, and that in all cases speech comes before reading and writing.

SPEAKING

General Principles

Just as a person cannot learn to play the piano by observing a performer or learn to swim without getting into the water, he cannot learn to speak a language without practice in speaking. Present-day modern language teaching is based on the realization that language learning, at least in the early stages, consists more in the acquisition of a set of habits than in intellectual mastery of a body of knowledge. The student's intellectual powers come into play after he has acquired some facility in using the language, not before. Linguistic science has taught us that in teaching a language, start with the spoken language, and go on to the written representation of the language.

This does not mean that we should neglect teaching the student to read and write or consider it unimportant; it merely means that we recognize writing for what it is – the graphic forms as symbols of the stream of speech.

Vocabulary

In English we must distinguish between two kinds of words. In a sentence like The dog is big, you can point to a dog or show a picture of a big dog and a small dog. But how can you point to, or draw a picture of the. Words like dog (nouns) and big (adjectives) are called content words. Words like the (determiners or functional words) are structure words. The distinction is important because you cannot teach these words in the same way you teach content words.

You can teach nouns and adjectives (content words) such as dog and big through pictures. But you cannot teach structure words such as the through pictures. They must be taught in grammatical frames like The dog is big. The structure word "The" in this frame means that the referent of the following noun has already been identified. Structure words should always be taught as parts of complete grammatical frames.

Current words in English are counted in the thousands. There are only about 200 structure words. These words occur so often that they make up over one-third of the words in any English conversation. It is almost impossible to communicate without them. They are the framework of the language upon which the body of English is built.

Teaching the meaning of content words is comparatively easy. Visual aids physical objects themselves, pictures, flash cards, will help. Occasionally you will find a content word (a word like begin or mean) to which you cannot point or of which you cannot draw a picture. In such cases, you may have to use an equivalent word or phrase in the student's own language. This will save precious class time in the beginning. Later these non-picturable words may be defined in English words that your students will understand.

Language instruction must be systematic. Language is a complex system of levels, one resting upon another. The student must be given only a few building blocks at a time, and must learn to lay a foundation before he attempts to build larger and more complex structures.

The most profitable way to teach vocabulary is in context. In English, as in all languages, words have many meanings. As you know, words acquire their meanings from the way they are used and from the situation in which they are employed. This is why vocabulary lists can often be misleading and useless. There isn't any experience to be gained from a word that is merely a part of a vocabulary list.

It is very important that second language learners develop their understandings of, and feelings for new terms through their experience with them in meaningful situations. Another thing to keep in mind is that words do not mean the same thing for people of different cultures or even necessarily for different people within the same culture. This is what makes one-word definitions in another language very difficult if not impossible.

A recent article in a popular magazine pointed this out in a clever but humorous article wherein it stated that the first thing the man should learn in any language is how to speak to a beautiful girl. It illustrated how differently words are used in different languages. The article was written in fun but makes the idea clear.

> For instance, in French, girls seem to be very pleased to be called "Mom Petit Loup!" (My little wolf.) Also, Petit Chou (my little cabbage) is a common term of endearment. (American girls do not mind being called sweetie-pie but would certainly resent wolf or cabbage.)
>
> The author pointed out that he was sure that American girls would not care for British sweet-nothings either. They tend to be fondly insulting, such as "My Good Old Sausage" and "My Tough Little Bundle."
>
> The German swains go in for little animal names like puppy dog

and kitty cat. But the one most likely to be resented by the American girl is Mein Schweinchen (My Piglet).

Going back to the person learning English, how would you translate word for word certain expressions used by American men in speaking of their wives: The Boss, The War Department, The Better-Half, and The Ball and Chain.

Pronunciation

The following is by Don Dedera who writes a daily column for the Arizona Republic, Phoenix, Arizona:

> "BOW, WOW," my dog said, naturally enough. Or did he?
>
> My Korean friend smiled patronizingly;
>
> "In Korea we believe that when a dog barks, he says, Kang, kang."
>
> Kang, kang!
>
> I got on the horn for a fast survey of the Little United Nations Arizona has become. In the language of the Old Country, I asked, What do the dogs say?
>
> Laura Danieli (of Italian parentage), swears that the people of Italy are convinced that dogs bark, "Bu, bu."
>
> Tom Tang said it depends on whether the dog belongs to folks of Cantonese or Mandarin dialect. In Cantonese, a dog utters, "Wu, wu." In Mandarin, "Bow, bow."
>
> No less an authority than Andy Chuka dredged from his boyhood memories of Hungary the rather mournful expression, "Aou, aou."
>
> The Hungarian dogs would have some language problems in Japan. Kathryn Kajimura knows that Japanese pups clearly enunciate, "Wong, wong."
>
> Mrs. Bill Tolmachoff had to interview half the Tolmachoff clan of the west side before she found an old-timer who recalled that Russian dogs say, "Am, am."
>
> And right across the border in Yugoslavia, according to Mrs. Carl Svob, the Slav dogs answer, "How, how."
>
> Depends on the size of the dog in Czechoslovkia. Dr. Ernest L. Parker gives this equivalent for big dogs: "Wow, wow."

For little dogs, "Harf, harf."

Mrs. Harold Beaubien doubts that poodle-talk is precisely transferable to English letters. But if you wrinkle your nose and exclaim, "Fouff, fouff," you produce the sound that the French believe is made by dogs.

That may be, says Mrs. Richard Meimann, but in Germany the hounds go, "Wau, wau."

South of the border, dogs seem to put more throat into it. To the best recollection of Mrs. Grace Gil, Mexican pooches say, "Gnau, gnau," and of course, in this case, the G is hard.

Donna Mitchell, a Navajo college student, is on a speaking acquaintance with Navajo dogs, which bark, "Oo-uh, aa-uh," enunciated ever so softly.

The sound is similar, but not identical, to that emitted by dogs in Switzerland. Mrs. Martha Hickey remembers the peaks echoing a kind of doggy yodel: "Oo-woo, oo-woo."

I could buy a lot of it, but I had to tell my Korean friend that I didn't believe any dog in the world goes, "kang, kang." Not even his.

In all classes where the audio-lingual method of teaching is used, every lesson, regardless of subject matter, is a lesson in pronunciation. You must remember, however, that acquiring correct pronunciation of a second language is basically the development of new muscular habits.

Your student learning English will be confronted immediately by sounds that do not exist in his native language. Also, there will be sounds in English that are almost but not quite like the ones that exist in his native language. Before the student can produce the English sounds he must be able to hear and distinguish them.

The most effective teaching techniques and materials are based on studies which contrast your students' own language and English. Such studies identify differences in sound, in word order, in vocabulary, and in cultural outlook. If the teacher knows these differences, he can anticipate some of the problems that his students will meet when they transfer their own speech habits into English and can plan his teaching better. For many languages, comparisons have been made by linguistic scientists and their studies have been published. If such a comparison is not available, simply notice what words and sounds your students consistently have trouble pronouncing in English. This will give you a clue to the problem sounds. (For comparison of English with Spanish, Navajo and Papago, write to Division of Indian Education, Arizona State Dept. of Public Instruction, State House, Phoenix, Arizona, for free materials.)

Since students cannot pronounce what they cannot hear, they must first have practice in distinguishing the English sounds which are new to them. They will need practice on minimal pairs. These are two words which differ in only one sound; for example, in hit and heat, the only pronunciation difference is the vowel. In working on sound practice, take only one new sound at a time.

Following are examples where supplementary pronunciation drills on the consonant sounds of English are needed:

The s and z sounds: Sue - zoo, rice - rise

The k and g sounds: coat - goat, could - good, back - bag, pick - pig

The t and d sounds: too - do, time - dime, bet - bed, coat - code

The p and b sounds: pig - big, pie - by, cap - cab, cup - cub

pie	by	too	do	coat	goat
cup	cub	bet	bed	back	bag

The f and v sounds: fine - vine, few - view, leaf - leave

The two different sounds of th: thin - then
(There are few words that differ only in the voiceless and voiced sounds of th.)

The sound heard in: sure (voiceless) - pleasure (voiced)

The j and ch sounds: cheap - jeep, rich - ridge

The m, and n, and ng sounds: some - son - sung

The l and r sounds: right - light, raw - law, grass - glass

The y and w sounds: yet - wet, yell - well

The h sound: and - hand, at - hat, eat - heat

English vowels are very complicated, and there are a great many dialectal differences. The following contrasts are those made by most speakers of English, even if they do not pronounce the vowel sounds in the same way:

bit - bet - bat
pit - pet - pat
hit - head- had
pin - pen - pan
mitt - met - mat

When we say bit - bet - bat, our tongue drops successively from the high point on bit to the low point on bat. When we pronounce these vowel sounds, our lips are unrounded.

- - -

cat - cot - caught
Dan - Don - dawn

When we say cat - cot - caught, our tongue goes from the low part of the mouth to the low back part of the mouth. When we pronounce cot our lips are unrounded. But as we go from cat to caught our lips round slightly.

- - -

lack - luck - look
back - buck - book

When we say lack - luck - look, our tongue moves from the low front part of the mouth to the high back. When we say lack our lips are unrounded. But when we go from lack to look, our lips round slightly.

- - -

high - how
buy - bough

boy - bow
toy - toe
soy - sow

The combinations of a simple vowel and a glide are called complex vowels in spoken language.

- - -

ship - sheep
sit - seat

his - he's
hit - heat

is - ease
it - eat

live - leave
fit - feet

The vowel contrast in it and eat is a very important one in English.

- - -

let - late
test - taste

sell - sale
wet - wait

This vowel contrast is also a very important one in English, and needs to be practiced.

- - -

pull - pool
full - fool
look - Luke

The vowel contrast in pull - pool is difficult for learners of English to hear.

- - -

pier	pear	par	purr	poor	pour	
fear	fair	far	fur			for
ear	air	are	err			or

There are many different pronunciations of r and of the vowels before r in the various dialects of English. When we pronounce r our tongue does not touch the top of the mouth, and our tongue is in motion. Because our tongue is in motion, the sound of vowels that come before r are changed.

(An excellent book for teachers of bilingual children that was originally designed for speech classes: Schoolfield, Lucille. *Better Speech and Better Reading*. Expression Company, Magnolia, Mass.)

Rhythm and Stress of English

Learning to speak a language with proper stress is just as important as learning to hear and produce the various sounds of the language. Every language has its distinct system of rhythm and stress. This is why it is so important for your students to always hear English in a natural tone of voice and not exaggerated or spoken too slowly. They also will need much oral practice and correction in these aspects of the language.

Some linguists say there are four degrees of stress in English. For the classroom teacher it is best to recognize and drill on only three. Stress we all know is the relative degree of loudness or force that a syllable receives when it is spoken. When we say the word *cornice*, for example, the two syllables *cor* and *nice* are not said with equal loudness. Regardless of whether you whisper the word, say it in a normal voice or shout it, the first syllable is always spoken louder than the second syllable. We may call these three degress of stress:

primary stress – loudest
weak stress – weakest or softest
secondary stress – between primary and weak stress

When compared with that of many other languages, the stress system of English is very complicated and, unfortunately for the learner, written English gives few clues as to how the stress system works. It should also be pointed out here that although stress and intonation are separate systems in English they work very closely together.

When doing sentence drill it may be found helpful to tap out the rhythm on your desk. Hold your oral drill at normal conversational speed. Do not allow students to slow down or pronounce sentences word by word as this will destroy the rhythm pattern.

If a word in English is spoken by itself, it has a stress pattern. This is called *word stress*. You will be able to find the word stress of any particular word in the dictionary. Each word has *one* primary stress; of course, if it has more than one syllable, it will have other stresses, either secondary or weak or both.

Before we give examples of word stress, let us go on to *phrase stress*. In English any group of words spoken together with any kind of pause after the last word can be called a phrase group. This may be one word or a few words, or it may be a complete sentence.

There are various ways of marking stress used by teachers and textbook writers when they are working on this aspect of the language. For our examples we will use underlining to mark stress; two lines for primary stress, one line for secondary stress, and no line for weak stress.

go go ing nine teen sub sti tu tion

Now notice the following words, and particularly their word stress patterns when spoken one at a time with a pause between each one.

This a important

is very lesson

When you analyze the word stress pattern, you will find:

This, is, a	primary stress
very	primary-weak stress
important	weak-primary-weak stress
lesson	primary-weak stress

Now combine the words into a phrase group (sentence).

This is a very important lesson.

You will notice that only the word "lesson" has primary stress. This is because each phrase group in English can have one, and only one, primary stress. If something with two phrase groups is said in English, each phrase will have one and only one primary stress.

He speaks English/ but he can't write it.

It was Henry/ your brother who gave me the information.

Intonation

Intonation is the melody or tune of a language. It is the rise and fall of our voice in speaking. There is a very close relation between intonation and meaning; thus, this makes it very important for the student, learning English, to learn the proper intonation patterns so that he may speak properly and be able to understand what he hears. Even if an individual makes individual sounds quite exactly, he may be very difficult to understand unless he speaks with the right "tune." Our tune is difficult for a speaker of another language to learn when he studies English. If he intrudes the intonation contours of his own language into the speaking of English, he speaks with a "bad accent" and is hard to follow.

Intonation is heard around a certain number of points, called pitches. Pitch refers to the rise and fall of the voice and can be compared to the musical notes on a piano. However, voice pitches are relative, and not absolute pitches. Take, for example, a man with a low voice who has his range of tones which he uses in speaking, and a woman with a high voice who has a different range. But within each range there will be found low, intermediate and high points that the person uses while speaking.

An intonation pattern is the sequence of one or more pitches that are heard in oral speech. Linguists say there are more than one hundred intonation patterns used in English.

Any statement in English can be said with more than one intonation pattern. Changes in intonation mark changes in meaning. Examples are:

English:	He is going to New York today.	He's on his way.
English:	He is going to New York today.	Not coming from New York.
English:	He is going to New York today.	Not tomorrow or yesterday.
English:	He is going to New York today.	Matter-of-fact.
English:	He is going to New York today.	Not someone else.
English:	He is going to New York today.	Although someone denied it.

Rise-and-fall pitch in English is commonly used in:

Statement: I'd like to hear it.

Command: Come with me.

Questions that begin with question words, such as how, when, who, etc.

What did you bring?

Negative Statement: I didn't read it.

A rising glide is usually used for questions without a question word or which require a "yes" or "no" answer.

Are you going to have a party?

When we have two phrase groups in English, the intonation line is broken, although the sound of the voice may not completely stop between the phrases.

He's studying English, and German.

Juncture

A. Juncture refers to the cuts or joints in utterances and may be thought of as the "clotting" of syllables or the gaps of time between them. It is also used to close utterances or parts of utterances. The identifying characteristic is timing.

B. In English, there are four juncture phonemes.

1. Internal open juncture is the difference in timing that keeps one syllable from running into another and distinguishes word meaning by signaling word boundaries.

that stuff	I scream	a name	nitrate
that's tough	ice cream	an aim	night rate

2. Level juncture or level pitch-pause may be final junctures as indicated in writing by a dash. It may be the gap of time that occurs between natural phrases. It may signal that a closely related group of words follows and is indicated in writing by a comma or a semicolon.

one, two, three, four-
I used to go / to the movies.
John isn't here; he left.

3. Rising pitch pause or "upturn juncture" is a final juncture that we usually call "question intonation," and may signal that the speaker is not finished.

    one//two//three//
    You're not going to do that?

4. Falling juncture is the pitch-drop with which we end almost all statements, all answers to questions, all words or word groups spoken alone.

    Yes.
    You don't say.
    What is that?

Oral Drill

This bulletin is not intended to give teachers a complete course in second language teaching. It is designed to give in outline the general principles of second language learning. It will point out to teachers of English to speakers of other languages that there is no magic formula that can be passed on to help them accomplish their task. However, it will help teachers crystallize their thinking in the light of recent linguistic findings, and help them form a new "attitude" toward what language learning and language teaching should comprise.

As has been stressed above the problem of teaching a second language is a complex one, and the teacher must use materials and procedures based on sound linguistic and psychological foundations if he is to succeed in making the second language experience a vital and rewarding experience. Experienced language teachers know that to attain this goal, wise use of sequenced oral drill, with intensive repetition, can insure the development of a mastery of the basic structural patterns in the language.

How is a teacher not trained in the new methods to know with just which structural patterns to start and how to construct sequenced oral drills? With the growing national and international interest in the teaching of English to speakers of other languages has come a host of materials. Some of these are linguistically sound and can be adopted to different language groups. Following are three examples of series that will be very useful to the classroom teacher:

An Intensive Course in English (1960)
(by the) English Language Institute Staff
Robert Lado and Charles C. Fries
The University of Michigan Press, Ann Arbor, Michigan

1. English Sentence Patterns
2. English Pattern Practices
3. English Pronunciation
4. Lessons in Vocabulary

Basically these materials rest upon a descriptive analysis of the English sound system carefully compared and contrasted with the sound system of Spanish. This series is a classic in the field of second language learning.

English This Way (1964)
(prepared by) English Language Services, Inc.
The Macmillan Co.

This series consists of twelve textbooks designed as classroom study materials for six full years of formal training in English. Two Teacher's Manuals and Keys, with both general and detailed help in describing teaching methods that have been proved effective in use. The material is arranged to lead students carefully from beginning notions about the language toward mastery of speaking, understanding, reading and writing skills.

English for Today (1962)
(by) The National Councils of Teachers of English
The McGraw-Hill Book Co., Inc., New York

Book I:	At Home and at School
Book II:	The World We Live In
Book III:	The Way We Live
Book IV:	Our Changing World
Book V:	Life in English Speaking Countries
Book VI:	Literature in English

The six books in this series have been produced by a team of experienced writers, teachers, and linguists. They present a complete course in English as a foreign language. The vocabulary, the structure, and the readings have been carefully controlled and ordered.

Oral exercises can be drilled in several different ways. Drills intended to develop automatic response should be repetition practice in rapid, unbroken rhythm. These drills are not to test students but to help them learn. If one student hesitates, repeat the pattern and then ask him to repeat after you. If several of the students hesitate, the drill may be too difficult. In this case, drop back and use an easier drill and gradually work up to a more difficult one. The teacher must always remember that speech habits are formed by actual speaking, not by puzzling over how to say it.

Keep your class lively and the activities lively and varied. The essential order of your presentation may be the same day after day, but find new and original ways to use the materials. Experienced teachers have found that by introducing contests, games, role playing, etc., the students can have the experience of using their new language in action.

The following are different types of drill to use in teaching language patterns:

1. Repetition Drill. This is the first and basic step in any oral practice. The teacher should give the pattern to be learned orally, being careful to keep normal conversational intonation, rhythm and stress. For example, you say This is a chair. Your students listen carefully and then repeat This is a chair. Listen to them and help them to imitate you more and more accurately.

2. Substitution Drill. In the sentence This is a chair, tell your students to replace chair with another noun such as table: They say This is a table. In this type of exercise you are showing your students that you can replace one noun with another without changing the structure. Substitution drills are easy to conduct with rapid, unbroken rhythm.

3. Completion Drill. For example, you say chair -- small and the students say The chair is small. They are producing from memory the complete pattern which they have learned in repetition drill.

4. Conversion Drill.
    (a) Changing an affirmative statement to a negative one: You say The dress is new and the students say The dress is not new.

(b) Changing a statement to a question: You say This dress is new and the students say Is this dress new?

(c) Changing tense: You say I study my lesson and the students say I am studying my lesson, or I studied my lesson.

5. Chain Drill. This is a drill in which you can hear individuals speak. For example, you say chair --- here. The first student will say This chair is here, the next student says It's here, and a third says Here it is. Also, another version of this drill is called The Endless Chain. You, the teacher, ask a question, the student who answers it turns to another student and asks a second question, and so on around the class. The teacher stands by to keep the questions and answers coming smoothly and to correct serious mistakes.

After response has become automatic, the following type of exercise may be introduced:

6. Conversations. At this point, the students no longer simply repeat or manipulate the pattern. They may choose what to say in a natural situation. You could ask, for example, Is this chair small? The student could answer Yes, it is. (or) No, it's not. Or you might ask, What color is it? and the student could answer It is brown, etc.

7. Dialogues. Dialogues are interesting and a non-mechanical way of learning new vocabulary items. These should be memorized by oral imitations, then students may be selected to take the parts.

8. Short Talks. In these, students will use only the patterns and words that have been taught in pattern practice.

9. Dramatizations. For example, a student may go to the front of the class and act out a noun or an action. He asks What am I? (or) What am I doing?

Intensive practice is difficult work. Exercises should be varied before the attention of your students begins to waver. As often as possible, shift from choral to individual response. Each day be sure that every student has had a chance to ask questions as well as to answer them; he should say the affirmative statements as well as the negative ones. To learn to speak English the student must have much experience in actually speaking the language. Remember - language is a phenomenon of sound.

READING

SCOPE OF PROBLEM

It has been estimated that twenty-five percent of the school population of the United States is bilingual. The five southwestern states of Texas, New Mexico, Arizona, Colorado, and California were reported to have over 3,000,000 Spanish-speaking people in 1960. In addition there are more than 100,000 American Indians. The melting pot of the United States indeed possesses many children entering school with little or no knowledge of English. These are the children who will be referred to in this bulletin as bilingual.

Is this phenomenon of bilingualism a curse or a blessing? The question has captured the attention of governmental officials, school administrators, teachers, educational psychologists, anthropologists, sociologists, political scientists, linguists, speech correctionists, and personnel studying child development.

By demanding the use of the English language, as the medium of instruction, American elementary schools force upon a large number of children the problem of bilingualism. Many observers and investigators conclude that childhood bilingualism, forced or voluntary, results in many disadvantages.

One of the greatest disadvantages of childhood bilingualism, of interest to teachers, is that the child will suffer retardation in his education progress. He may become handicapped in reading and studying in general, and in specific subjects. His interest, initiative, and responsiveness in class may decline, and he may develop an inadequate adjustment to school and education in general, which in turn may result in his prematurely dropping out of school.

The mother tongue is so intricately connected to the child's first impressions of his world that it presumably never entirely vanishes from the unconscious. In this area of emotional adjustment, as in the areas of speech and language development, and intellectual and educational progress, the evidence, with exceptions, suggests that boys suffer more than girls.

Certainly we expect Indian and Mexican-American children in Arizona schools to learn to speak, read and write the English language. Yet, if this is made too important a goal per se, an objective to be obtained at the price of a violet break with everything in the past, the result is bound to be disruptive, since the needful continuity of life and its relationships will have been destroyed.

It has often been stated that the child who speaks a foreign language in the home and community is at a distinct disadvantage when he enters school and must learn to read and to speak English. It is both easy and dangerous to generalize from this statement. Obviously, the child is at a disadvantage when he is compared to children who have spoken English and have no other language. But the greatest handicap which the child faces is not the foreign language itself, but the level of that language as it is spoken in the home. If the parents are educated and communicative, the foreign language may give the child a distinct advantage in learning to acquire word meanings in English. In fact, this child may experience less difficulty than the English-speaking child who comes from a language-impoverished home and community.

PRIMARY READING

Learning to read one's own native language and learning to read English as a foreign language are very different matters. In teaching students to read their own native language, one assumes that the student already can speak and understand their language. They have already learned to produce and to respond to the signals of their language as these signals come to them through the ear. For them to learn to read, it is simply necessary for them to learn to respond to the signals that formerly came to them through sound. The language signals themselves are the same for both talking and reading. It is the medium through which the signals come that is different. Talk is accomplished by patterns of sound symbols through the ear; reading is accomplished by patterns of written symbols through the eye. To learn to read one's native language, it is the process of reading itself that must be learned, not the language. A person who cannot produce these sounds cannot get the message of a piece of alphabetic writing. If the bilingual child has not learned to utter the speech sounds of English, the only sensible course is to postpone reading until he has learned to speak the language well enough to handle the written material presented. Trying to teach reading of the second language before learning to speak it is putting, to say the least, the cart before the horse.

To the linguist there is only one language, and that is the spoken and heard language. The basic building block in the structure of language is called the PHONEME—a single speech sound. A phoneme is a significant speech sound which makes a difference in meaning. For example, the English words rip and tip are distinguished only by the first consonant which we must recognize in order to obtain meaning. What the phoneme is to the spoken language, the GRAPHEME is to writing. A grapheme is the "a" in "mate." The "a" in "father" would be a different phoneme, as would be the "a" in "hat." But all would be represented by the grapheme "a."

The basic sound-signaling system of English consists of forty-five units called phonemes: nine vowels, three semi-vowels (y, h, w,) , twenty-one consonants, four degrees of pitch, four degrees of loudness or stress, and four kinds of juncture. In any utterance, the pattern consists in the arrangements of these meaningless building blocks in combinations that have meaning. The phonemes are the minimal sound units which occur in the language and make differences in meaning. They appear in speech as parts of larger organizations. Phonemes are put together into morphemes, and morphemes into patterns of syntax.

All linguists emphasize the fact that speech is the primary form of language and underlies all writing. It is generally conceded that the development of competence in spoken language should run ahead of the development of competence in reading and writing at the primary level. At least in the primary grades, language patterns should be learned in the spoken language before they are introduced in the printed form. (An hypothesis which is as yet untested is in a sense the reverse of this; when children have mastered certain language patterns in their speaking, these patterns can begin to appear in the materials designed for teaching them to read.) In the discussion of the nature of the reading process, you will see why teachers of students learning English as a second language must tie all reading and writing to oral speech.

The Nature of the Reading Process

To learn to read one's native language, it is the process of the reading itself that must be learned, not the language. Bilingual students need to respond to the new language signals of English as these signals come to them through the ear. In addition they must learn to respond to the written shapes of the language.

We must remember that the signals that constitute a language are, first of all, patterns of vocal sounds. These patterns of vocal sounds are primary. For reading, man has invented various types of graphic representations of these patterns of vocal sounds. The patterns of graphic (written) representation are secondary. These secondary representations used for reading contain less of the language signals than do the primary representations--the vocal sounds. In graphic representations there are left out such language signals as intonation and stress, and pause. A large part of learning to read is to supply rapidly and automatically the portions of the sound system that are represented in the graphic signs.

Linguistics and the Teaching of Reading

Space does not allow more than a brief discussion of the importance of certain aspects of linguistics in the field of beginning reading. As time goes on it may well be that the contributions of linguistics to the reading program will become as valuable as they have to the teaching of a second language. It may help us to achieve our goal of the prevention rather than the remediation of reading problems with the bilingual child as well as with the English speaking child. As we go into the discussion of the relationship of linguistics to reading, we must realize that meaning is not derived directly from the printed symbol (or word) but rather from the printed symbol put back into speech, either vocal or sub-vocal.

Linguists would advocate, that the Mexican-American or Indian child coming to school, not speaking English, must have mastered certain language patterns in their speaking of English before these patterns can appear in their reading material. You will see the importance of this statement as you read through the nature of the reading process in a first language.

Linguists do not quarrel with the assertions given by reading experts concerning the need to make careful provisions for "the cultivation of a whole array of techniques involved in understanding, thinking, reflecting, imagining, judging, evaluating, analyzing, reasoning, and in making emotional and social judgments." These techniques of thinking, and evaluating do not constitute the reading process. The abilities enumerated above are all abilities that are and must be developed through the uses of language. Every one of the abilities could be developed and has been achieved by persons who could not read. They are all matters of the uses of language and are not limited to the use of reading. For the sake of simplicity, linguists many times use such technical language that we are lost after the first three sentences; we will assume that the first grade student has learned enough English so that he can report satisfactorily, ask questions, and make requests within the range of his social-cultural experiences. What precisely must such a child learn, in addition to his understanding and producing "talk" in order to "read" materials that also lie within the range of his second language learning, and social-cultural experiences?

Simply responding to graphic (written) signs by uttering certain sounds is not "reading." You cannot say a child is talking when he repeats after you the sound patterns in da-dy or ba-by. "To talk" the sound patterns must have all the features of "some language signal working through a language code to elicit a meaningful response." "Reading" is the response to graphic signals and must have all the features of some language signal operating in a language code, eliciting a meaningful response. "Word-calling" (word pronouncing) without the meaningful responses of the patterns that make the language signals of a code is neither reading nor talking. This view is in opposition to that expressed in "Why Johnny Can't Read, and What You Can Do About It, by Rudolf Flesch:

> "Many years ago, when I was about fifteen, I took a semester's course in Czech; I have since forgotten everything about the language itself, but I still remember how the letters are pronounced, plus the simple rule that all the words have the accent on the first syllable. Armed with this knowledge, I once surprised a native of Prague by reading aloud from a Czech newspaper. "Oh, you know Czech?" he asked. "No, I don't understand a word of it," I answered. "I can only read it."

To learn to reed a language, that you can speak, you must transfer auditory signals for language, to the new signs for the same language. During the "transfer stage" of learning to read, the materials used should be based on the child's speaking vocabulary. This is not the time to push the development of additional language mastery as far as the written material is concerned. This stage of the reading process can become very confusing if the body of language meanings and language signals used is not limited to those already within the linguistic experience of the child.

The following statement made by a well known linguist will come as a surprise to many primary teachers: "The teaching of beginning reading must not be conceived of in terms of imparting knowledge, but in terms of opportunities for practice." We, as adult reader, respond unconsciously to graphic features. This did not come about by "nature" and had to be "learned." These habits of unconscious response have been achieved by thousands of hours of practice or use.

In view of these facts, we do not hesitate to say that the rewards of the first steps in reading should not be impressive growth in English vocabulary. There are rewards, however, of many types. There is the great satisfaction of mastering a skill in an orderly fashion. If an analogy will help here, we might say the first steps in reading are like first steps in learning to drive an automobile. Both skills have enormous attractions to the eager learner, for they are gateways to many joys. The learning car-driver has these rewards in mind, but at the start he is totally engrossed simply in the activity of learning to drive. At this stage he has no thought of going anywhere. Learning to operate the automobile is interest enough in itself, and so it is with reading. The reward of emulating the grownup, for whom reading is obviously very important, is the long-range goal; but the skill itself is reward and delight enough for the beginner.

Relation Between Language and Writing

From an extensive review of teachers' manuals for primary reading series, it appears that a considerable amount of time and effort is expended in teaching children to distinguish different sounds, meanings and grammatical forms. This seems like a needless diversion from the central goal of teaching beginning reading to the child that has an oral mastery of the materials being presented in written form. The most reasonable thing would be to proceed directly to the essential matter of associating sequences of letters with sequences of sounds. This will be a much slower process with the child that does not have adequate control of the sound system and the grammatical structure of English. So you can see, as stated above, that you must postpone reading until your Indian and Mexican-American students have mastered certain language patterns in speaking. Then these same patterns can appear in the materials designed for teaching them to read.

After the "transfer" stage of learning to read, of course children will enrich their knowledge of the language by enlarging their spoken and writing vocabularies. The English speaking student will learn hundreds of new words and idioms through their reading both in school and out. (This is not always true with your bilingual students where few have traveled widely for pleasure and education, fewer have reading materials at home, fewer have access to radio and television programs, and many live in homes where very little English is spoken. It then becomes necessary for the school to provide as many of those experiences as possible.)

In the early stages of learning to read the purpose is not to add to the child's stock of words. In fact, most preprimers and primers expressly avoid words that are likely to be unfamiliar. This is in accord with the primary goal of simply learning to read words that the student has in his speech.

In view of this it seems rather wasteful to spend time and effort "clarifying the meanings" of words like this, that, it, he, she, they, but, so, is, was, etc. The meanings of such words must be firmly and permanently established in the child's mind and should be constantly reinforced by dozens of repetitions, in oral English, every day.

Teachers must keep in mind at all times that ear training is extremely important in the teaching of any foreign language. Drill on proper articulation of sounds is necessary, but ear training is even more fundamental. A student must first hear a sound clearly before he can produce it. Concepts of quality, pitch, and volume originate in the hearing area of the brain. The tonal image is heard mentally before it is actually produced by the voice. If this image is not exact, the production of the sound will not be accurate.

It takes a much longer time than most teachers realize for a student to distinguish clearly the various sounds in a foreign language--particularly if such sounds do not exist in his own native language or are produced in a different way from comparable sounds in his own language. For example, a beginning student of English, whose native language is Spanish, is completely "deaf" to the differences between the English vowel sounds in such words as bit and beat. The difference is so clear to the English ear that it is hard to realize that anyone, regardless of language background, should have difficulty in hearing it. Yet to the Spanish speaking student bit and beat sound exactly alike. It will take this student several months to hear any difference between the two words. After this, it will take additional months before he can approximate the difference in his own speech. Finally, if he is not checked continuously, he will slip back later and just not bother to differentiate between the two sounds. Then when he starts reading this will be an additional handicap to overcome.

You would, I am certain, agree that learning to read is more than just learning to tell "a" from "b" or learning what sound goes with what letter. Connecting "squiggles" on paper with speech sounds is hard enough for the native speaker of English. But now consider a student learning English as a second language, to whom we hope the same "squiggles" will come to mean exactly what they would to a good native reader. To summarize we can say, briefly, that experience and research tell us that phonics is effective with the student learning English as a second language when it is taught functionally and related to oral speech.

It seems probable that no one theory is adequate to explain all the learning that takes place in the acquisition of skills and habits involved in the complex process of learning to read. Accordingly, successful teachers no longer rely on one specific method of teaching. Rather, the skilled teacher combines aspects from a number of systems for learning to read, varying the method in relation to the specific purpose back of the learning.

READINESS

An extensive review of books (1957-1964) prepared for teachers wishing to acquaint themselves with the modern philosophy and practices in the teaching of reading was made by teachers of bilingual children. The survey showed an almost 100 percent disregard for techniques to be used in teaching the bilingual child to read. The following is a quote from Fundamentals of Basic Reading Instruction, by Mildred A. Dawson and Henry A. Bamman, published by David McKay Company, Inc., New York, 1963.

> A child's language development does much to determine his initial readiness for reading. How can he read sentences if his spoken sentences are fragmentary or incorrectly phrased? How can he follow the sequence of events in a story if he cannot tell an experience of his own in good sequence? How can he read English if he hears and speaks a foreign language at home? It is important that a child's spoken language be far advanced if he is going to be able to read printed language. The so-called prerequisites for learning to read involve the following aspects of languages:
>
> A wide listening and speaking vocabulary
> Ability to speak in complete sentences
> Ability to pronounce and enunciate words correctly
> Ability to hear the differences and likenesses in
> the sounds that make up spoken words
> (m vs. n; d vs. t)
> Ability to follow the sequence of ideas in a story

So you can see why the immediate goal of instruction in the first grade, for bilingual children, is to develop understanding and automatic control of oral English. These children, of course, must ultimately gain proficiency in reading and writing. The teacher should therefore make every effort to provide them, when they are ready, with appropriate reading and writing experiences.

They need a program of instruction in English as a second language that enables them quickly to function adequately in the classroom with their peers and that provides the foundation for further growth in the English language. The experiences that are used for helping the child acquire this basic foundation should be keyed to the regular classroom program.

The teacher will find that she cannot go far beyond the present in time, location, or in her daily work with the children. If language is to be meaningful, she must deal with what can be seen, touched, smelled, and tasted.

The period between hearing and speaking appears to be an important learning stage and one not always appreciated as such. Much language learning will have actually taken place before newly learned words are spoken.

Even children learning to read in their native language may have difficulties in the area of auditory discrimination (the ability to hear the differences and similarities in the sounds of various words) and may need supplementary experiences after they enter the first grade. Hearing and saying nursery rhymes and other simple poems can be so guided that the pupils will begin to note both the alliteration and the rhyming words in "Peter, Peter Pumpkin Eater" and "Sing a Song of Sixpence." Listening to rhymes and word sounds is not enough; the children should also have many opportunities to enunciate them. It is as a child deliberately gets his tongue and lips into position for making a desired sound that he becomes truly aware of the sounds that constitute any particular word.

Introductory reading readiness books for the pupils' use abound in interesting exercises that will help children become alert to the sounds that make up spoken words. Teachers' manuals that accompany sets of readers give careful guidance in the materials and methods that will best cultivate auditory discrimination in children. Every teacher should avail herself of the helps that such manuals provide. Since many teachers, of bilingual children, do not fully understand auditory discrimination and ways to develop it, they must use manuals for this very fundamental aspect of reading skills.

Another important element in reading readiness is visual discrimination, or the ability to see the differences and liknesses in words. Many reading readiness books have exercises in which a row of five objects has four that are just alike, and one that is a little bigger or that faces the opposite way or that has a part missing. The child then selects the one that is not like the others. Other beginning workbooks have similar exercises that involve only letters or words, the principle being that children should learn the kind of discrimination that reading actually calls for. Here, too, teachers' manuals give helpful suggestions for teaching children to develop visual discrimination.

For the child who has had meager contacts with reading in his home, the teacher should provide a rich reading environment: a corner with many intriguing picture books; a bulletin board with announcements, posters and captioned pictures that will arouse curiosity; a chalk-board that daily features committee listings and plans, news stories dictated by the pupils, and other current notices. There should be daily periods when she reads to the children. Here the teacher must provide abundantly what the home has failed to give.

Readiness for reading is an important factor not only at the first-grade level but throughout all the grades. Just as children may or may not be ready for reading a pre-primer or primer, so they may, or may not be ready for a fourth or seventh reader. The readiness of every student at each successive stage must be diagnosed, and, if found wanting, must be carefully developed. As they advance through the school program, children meet new words, encounter widened concepts of old words, cope with more complex organization of materials, and develop new needs or purposes in reading. Thus, in a very real sense, the child is always beginning and, therefore, always in need of readiness.

THE USE OF BASIC READERS

In an Associated Press Release in May 1963, Indian Commissioner Philleo Nash made the following comments about educational materials provided for Indian children in our schools:

> Nash has been critical of the "Dick and Jane" textbooks as educational material for Indian children. He says these are oriented toward the middle-class, suburban family accustomed to having a nice car, a nice home, and living in a community with uniformed policemen and firemen.
>
> "Indian reservation life is about as far from suburbia as one can get, on the average reservation," Nash said in an interview.
>
> The name Jane seldom is found on an Indian reservation. There are some named Dick. But these Indian children, and 80 percent of those in our Indian schools come from non-English speaking homes, need materials related to their own daily occurrences.
>
> They are not accustomed to nice books, nice pictures, nice homes and the tribal policemen do not wear nice uniforms.
>
> There are many wonderful Indian values, such as sharing, that they should have available in material growing out of their own experiences. They should have materials dealing with their background, their traditions, and their heroes."

There is truth in Dr. Nash's comments. Too often, English has been taught through readers which were imitation of those used in English speaking countries to teach beginning English speaking children five or six years of age. Such readers were socially and intellectually much too immature for non-English speaking students by the time they knew enough of the new language to be ready for formal reading. At the same time these readers were linguistically much too hard for non-English speaking pupils who knew no English when they started to school. English speaking six-year-old children have at that age already learned to use the basic structural signals of the English language, and practically all of them have used, for at least two or three years, only English for all their language needs. These children do not need to have the basic English structures carefully arranged for step to step learning.

With the growing national and international interest in the teaching of English as a second language, publishers will be creating more material for the teaching of English as a second language. In the meantime teachers will continue to use textbooks provided for all children in our schools. There are advantages and disadvantages to this procedure.

Children need the stimulation, support, and organized approach of a comprehensive and thorough reading program. Actual specific procedures for handling materials in order to build up recognition responses to printed materials as representing the spoken words the children already have in their oral vocabulary, should be the function of any set of basic readers.

Basal reading series offer teachers a planned and co-ordinated reading program. It is not a hit and miss affair. Thus a basal reading program does not introduce a skill and drop it. Rather, a good series, provides over the years for gradual and continuous development of important reading skills. The thing to remember is that you cannot fit the child to the program, but must fit the program to the child. Because all children grow at different rates, and are ready for particular learnings at different times, a well-planned program offers opportunities for such learning on different occasions and in different settings.

Though basic readers have an important place in the reading program of a modern school, they do not constitute all of the materials used in a full-scale plan for reading activities, but must be supplemented by many different materials. Basal readers become, in most schools, the course of studying in reading skills for most grades--but this should be for the average student only. Slower learners and faster learners must be provided with supplementary materials. A few examples are given below of materials that will contribute to the developmental, recreational, and enrichment facets of a good reading program:

Supplementary readers
The children's own writings or dictated stories
Charts of various types
Newspapers and magazines
Picture dictionaries, dictionaries, and encyclopedias
Captions on film strips

YOUR UPPER GRADE BILINGUAL STUDENT

Your bilingual students, like other girls and boys in early adolescence, have intense concerns. Many times at this age they differ from their English speaking classmates in that their sphere of expanding interests are limited to their culturally impoverished backgrounds. They have strongly emotional reactions to everyday experiences. The nature of their physical growth creates problems for them because they are usually one or two years retarded as to age grade placement. Girls are conscious of their appearance. They may be aware for the first time that their clothes are not just exactly like other girls of the dominant culture. Boys are shy and very conscious about change of voice. Both strive to be accepted by their peers and are very aware of each other. Each student thinks his problems are unique in his youthful self-consciousness. Through reading, and understanding what they read, they can find gratifying assurance that others of their age have had the same covert uncertainties and aspirations.

Your bilingual student may find the ideas of adults only half-way acceptable. They are confused by the conflicting demands of teachers and parents. How can they feel any degree of self-confidence when the demands, commands and reprimands of the grownups in his life are often inharmonious.

Different from your students from the dominant culture, your bicultural adolescents may not be curious about the world of work outside their own sphere of experience. Aspects of the worth of work and its service seldom loom large in their thoughts. They speculate on immediate employment and immediate satisfaction of desires rather than on how to prepare for future jobs.

They are curious about how the general population lives and are interested in people a little older, who live adventurously doing the things they dream of doing. They admire the conquering hero -- and identify with him -- regardless of race or creed. This is borne out by Indian students yelling for the cavalry as they chase the marauding Apaches over the hill in a Western movie.

The bilingual adolescent's sense of humor may differ from your other upper grade readers. Don't be chagrined when he laughs at you, not with you. However, he enjoys a misfit character in high misadventure. This is evident in their great love for comic characters such as Popeye and Huckleberry Hound. A play on words many times brings a favorable response which you will hear them repeating on the playgrounds.

Tall tales such as the adventures of characters similar to Pecos Bill are usually popular reading for these adolescent boys and girls. They enjoy fantasy as legends are such an important part of their own traditions.

Not all seventh and eighth grade students are willing readers. Among bilingual students this is often the case. In many of their homes there are few newspapers, magazines and books. With Indian parents a large percentage do not read English--or in fact any other language--as the written Indian languages, with the exception of Cherokee, are Whiteman made. These reluctant readers seek their satisfaction in places other than the school library. Being linguistically handicapped, the become limited learners. Much class discussion passes over their head and some soon become both discouraged and discouraging. There is a hard core of resistance to the persistent efforts of teachers to get them to read better, or to read at all. Comic books, picture magazines, television and movies vie with the printed page. The former usually are the winners; the printed page comes in a bad second as to interest catching.

Although reluctant readers are alike in their resistance to reading instruction, each is unique from his fellow-resister in one or more ways. There are bright and dull bilingual students just as with your entire school population. You find many reading below their ability levels. Because of shyness and fear of ridicule, they are frequently poor classroom performers. Some excel in numbers, but are hard pressed to spell out the basic concepts of math in words. Artistic and mechanical talents often compensate for defeat in communication skills. Resentment is manifest in many different ways with these upper grade bilingual students who are not up to grade-level. Their reading disability causes embarrassment in school, and the constant pressure from teachers adds acid to the brew of their acerbity. Self-confidence is lacking to a dangerous degree. More than your native English speaking student, the bilingual child becomes failure-oriented when it comes to wrestling significance from the printed page.

When you study the bilingual student's reading disabilities, you will find many times he is not lacking in word attack skills but is woefully inexperienced in reading for functional purposes. He sees no "real" purpose for reading. To him, it is something that adults think he should do. He cannot visualize how the use of words and control of ideas can help him achieve his self-set goals. These inadequate readers have pitiably limited vocabularies, both in English and in their own language, and for them much supplementary assistance is needed. If they do not have the basic skills, these must be taught systematically, repetitiously and conscientiously. In cases where they have the basic skills but fail to use them effectively, help will be needed to assist them gain skills in applying their knowledge in order to develop independence and find pleasure and satisfaction in reading.

Only by knowing each reluctant reader in your class can you help him. The bilingual student is no exception especially here in the Southwest where we have Spanish-speaking, as well as Indian students, from many different language groups. It is well to take into account the native language of the student, being taught, when you diagnose his reading disabilities. Since your students vary so in cultural background, native language and mores, this poses a different view on such student's personality and mentality, and you as a teacher then have a special responsibility to discover all you can about each individual student.

Your best source of information should be your cumulative records. You need to know what to look for: Has he attended school regularly? If he is Indian, has he moved often, from public to government schools and back again? Has the schooling been on or off reservation? Does he go with his parents when they take seasonal off-reservation employment? What has been the philosophy of the schools that he has attended? Have you checked his health record?

Frequent or long-term absences, and late enrollment play havoc with reading achievement where no provision is made for make-up instruction. Check for hearing and sight disabilities; these are major factors in failure to achieve basic reading skills. Review closely results of standardized tests of reading achievement he has taken. What are his relative strengths and weaknesses as reported in these tests? Does his learning profile show he is an underachiever? Has his progress been steady or are there plateaus on the profile?

How does the bilingual child in your classroom deal with his lessons and with people? Are his work habits efficient or does he busy himself with many "little things?" Observe his staying power and attention span. (Indian children are great weather forecasters and the spring of the year brings on much daydreaming.) Does he have broad and deep concepts in English or are his understandings superficial? How is he accepted by other students and what are his attitudes toward them? One bilingual, who is not achieving in school may be bullying and disruptive, while another may be timid and withdrawn. His contributions, and his lack of expression, in group discussions are a good measure of his grasp of the communication skills in English.

As your knowledge of each student grows so will your competency in ability to give direction to the reading selections and activities you assign to assist your bilingual student.

LANGUAGE PERFORMANCE

Appraisal of the bilingual's performance with words should be assessed in detail just as your evaluation of his interests, anxieties, and emotional maturity. It is well to remember that you, as an upper grade teacher, must continue to sustain, and harmonize the learning of the four communication skills in their logical order: hearing, speaking, reading and writing. The bilingual child will reveal the stage of his vocabulary development in English as he reads aloud or talks. Be sure to check his comprehension by use of purpose questions for silent reading of sentences, paragraphs, and whole selections. Whatever his limitations in reading, your student learning English as a second language gains much through listening. One authority on second language learning suggests that at the upper grade level, a student should spend at least twenty percent of his time in listening, twenty percent in speaking, forty percent in reading orally and silently, and twenty percent in writing. Indian students must be encouraged and many times almost pressured to participate in group discussion. It is against many tribes' cultural patterns to disagree orally with another person's opinion so be sure to study the thought potential in critical response, if and when he makes them, to the response of others.

The bilingual student, who is not reading up to his grade level, has word trouble aplenty. By skipping over words he does not understand, he leaves gaps in the sentence he is trying to understand. Words as such have little or no interest to him. The glossary is many times useless to him even if he has the interest and ability to use it. Think how confusing the use of the dictionary becomes when an unknown word is defined in a number of words just as strange to the reader. He can be very inept in locating an entry in the dictionary, understanding the symbols and then ultimately arriving at the right definition. Context clues are almost as useless in arriving at the meaning of an unknown word, if he does not understand the content. His general vocabulary is usually very meager. Even the words he has in his spoken vocabulary he fails to recognize in print, if he has been taught by the say-see method. This makes his stock of sight words lower than his listening-speaking vocabulary. Another major problem is that he is apt to know only one or two of the many meanings an English word may have.

If he has had a bad attendance record his word-attack skills may be limited and uncertain. Above all if he was exposed to reading before he spoke English fluently, his auditory discrimination is often poor and his sound blending ability worse. With this lack of skill he will be unable to analyze a word and draw meaning from its parts: base, prefix or suffix. Compound words even when self-explanatory baffle him at times. You will find that frequently the bilingual reader's syllable sense is very poorly developed. If he does not know the phonemes of the English language, it is hard for him to hear parts of words clearly. Figurative language loses much of its delights and subtleties in translation. Biblical and mythological allusions frequently mean nothing to him. How can he understand a piece of writing when he has missed possibly the general interpretation, and certainly the overtones of satire, indirect implications, and connotations?

Directly related to his lack of comprehension of what he has read, is his lack of ability to understand and participate in discussion about the reading material. Hard as he may try the retarded bilingual student can at best learn superficially such things as the names of characters, the plot of a short story or details of incidents from the story. Due to his lack of comprehension, his time spent in passive listening to his instructors and classmates is frequently wasted.

He has to be exposed to a word orally and written in meaningful context a number of times before it becomes a part of his speaking vocabulary. Much more than your native English speaking students, he must involve himself with your help, in vocabulary building. In addition, he needs skillful coaching in acquiring independence in word mastery. When he cannot attack the word independently and in addition does not know the meaning, his handicap is twofold.

Where your student does not speak English fluently, he commonly fails to make necessary connections in reading sentences. He does not mentally close the circuit between a subject and its verb, he finds no connection between a verb and its modifier. Spanish-speaking and Navajo students, because of the patterns of their native language, find it difficult to tie the modifier up with the term it was meant to modify. You can be sure if he has not grasped the melody of English in his spoken language, he has never mastered the signal code of punctuation marks. With long sentences, it is very difficult for him to derive the exact meaning set forth by the writer.

The intent of a written sentence is many times lost on the second language student. It is very difficult for him to distinguish between a statement of fact and one of judgment. (This is not unique with the bilingual student.) Sweeping generalization will pass over his head like a gentle blowing breeze.

The bilingual student poses his own special problems in your classroom. His problems are not the same as your English-speaking remedial students who are frequently either intellectually slow, or lazy and unmotivated. This much is found to be true. Experienced teachers find, however, of some remedial and some bilingual students: both may have serious emotional barriers to self-expression. It will be found many have not mastered completely the sound system of English, and frequently his English is unidiomatic. He may be fluent in a rather slangy brand of English, so fluent in fact that his proficiency in the substandard brand is a real barrier for him to overcome in speaking, reading and writing in the upper grades.

Teachers must offer a diversity in learning activities to hold their students' interest and give them real help to overcome their language problems. Their many weaknesses, such as limited attention span, unwillingness to try because of repeated failures, limited speaking vocabulary and word attack skills, these all suggest the need for multiple approaches toward learning goals. Experienced teachers have found that their classroom must become a reading laboratory where their linguistically handicapped adolescent receives systematic and continued help in acquiring the fundamental skills of reading if they have not been achieved in the lower grades. More than native speaking children, they need real experiences for the purpose of extending their horizons of knowledge about the world in which we live. To learn to read English you must speak the language. To build concepts and add to their understanding of what they read, there must be plentiful discussion in English. Only through mastering the basic signals of the language most thoroughly can the bilingual student really understand what he reads.

READING SKILLS

No matter how sound your program of instruction is many of your upper-grade bilingual children will be unable to read successfully the average materials provided for these grades. Therefore, the basic material used is very important.

Sometimes teachers become so involved in testing to see if the students understand what they read that they forget that reading is but one facet of the communication skills, and that all language arts are only agents for communication of a thought. Encourage your students to pursue many kinds of activities growing out of their reading experience. If your students are so disadvantaged in the use of English that they cannot formulate their own questions to give a purpose to their reading, then by all means, read orally and give emphasis to teacher made questions. Unlike the English speaking students, many bilingual students do not approach reading because of their impoverished experiential background, with a purpose and with personal inquiries. You, the teacher, must supply this stimulus where it is lacking.

Expanding this idea further, you must not only supply a purpose for reading, but also you must vary your methods of motivation. Choral reading, dramatizing, and use of diversified written activities all help to prevent monotony.

Your bilingual child needs a routine that offers security. This he has had in the directed reading activities used by his lower-grade teachers. Your plan can be equally effective if adapted to the grade level of your students. Indian students, especially, need to have confidence in the competence of their teacher. They respect a teacher who has well-defined purposes and technical proficiency. They are more inclined to cooperate than are the students from the dominant culture, when they see a clear path marked for them--with their responsibility made definite by the teacher.

Your teacher's manual certainly will not hamper your creativity in working with bilingual students. It is usually organized in terms of the steps of directed reading activity. You, the teacher, are in the best position to key the suggestions offered to the needs, interests and background of your class. Upper-grade and secondary teachers who have not been as well trained in the teaching of reading as they have in their own specialty will find the manual very beneficial in helping them plan for sequential skills development in their reading program.

The pictures and other visual aids applicable to the theme of your selection should be used more often with the bilingual reader than with your English speaking students. Examine and discuss these visual aids as you prepare your students to read. They may clarify concepts of size, time or location not familiar to students that have not had an opportunity to have experiences beyond their own environment.

Your introduction may be very simple. Have the students turn to an interesting picture in the selection. Good illustrations are invaluable as you work with these students. Through them you can develop both concepts and vocabulary. As you ask questions about the picture bring out new words by informal use. As you talk about the illustrations, pause to write the new words on the board, discussing their meaning and have the students say them orally. Do not go into analysis at this point as it might interrupt the flow of thought. (Reserve this for a later time.) This way your students will have the experience of hearing, saying and seeing the new words. After you have aroused interest in the material, helped students with the new words, you should be able, at this time, to introduce your "purpose questions." These provide students with a specific reason for reading.

The length of the readiness period may vary from day to day depending upon the material present. For the bilingual student this is time well spent. They will then proceed to the silent reading with a sense of confidence and purpose. One reading authority adds a word of caution--be sure not to give away the whole plot!

GUIDED SILENT READING

Most reading teachers of English speaking children, as a general rule, feel that silent reading should precede oral reading after the primary grades. With the bilingual student this will come later in the grades. The silent reading of new materials "at sight" is indeed a major achievement in the learning of a new language. This step of reading can be achieved only by those who have mastered the final basic signals of English very thoroughly.

The advantage of silent reading with older students after a good readiness period, is that they gain independence in word analysis and the use of context clues by individual practice that is inherent in the process of silent reading. As they are compelled to interpret and organize for themselves, they grow in skills and comprehension. Then reading becomes real reading in English, and not translation. The above can be true only if the students are reading materials on or near their instructional level. No progress can be expected if students are given materials too difficult for them.

Guided silent reading should be just as near as possible to reading in other subjects where the student reads for a purpose. If in the readiness period, students have formulated their own reasons for reading, then they have the most valid of purposes. But even if they read for a purpose supplied by the teacher, they have a core around which to assemble impressions and organize materials.

Circulate about the room as your students read silently, or if you have more than one group, work with only one group at a time. A student who needs help may raise his hand. Tell the child the word or definition he needs, do not dwell too long on analysis. Make a note of any problems that several students are having. Then you may work on them with the group later.

This is an excellent time to help individual students overcome poor reading habits. A word of advice here and there will help students adjust their reading speeds to the material being read. You may use this time as a diagnostic period. It is easy to see which students are uninterested or frustrated in their efforts. The nature of their requests for help will point out their areas of weakness.

Students will read at different speeds. They will not all be finished at the same time. You can't have most of your class sitting around idle, or causing disturbance, while a few finish. It is a good "rule of thumb" to begin your discussion when approximately eighty to ninety percent of your class is ready. The well-advised teacher has found it necessary to provide some sort of seatwork for part of the class if the reading rates in the class are very divergent. Most reading authorities feel that this seatwork should not be on the material just read. (This will come as a surprise to many teachers.) If this surprises you, stop and think: With the bilingual child especially, the material has not been discussed and clarified so there is little point in having the students write erroneous or confused ideas. Other students may not read the entire selections, but employ their time in searching for answers to questions. A better type of seatwork is based on comprehension skills, problems in word analysis and word building that have already been taught. Commercially or teacher prepared material may be used here.

Your period of discussion following silent reading is the place where the comprehension skills are developed. This is a very vital period for the bilingual student and should be very well planned and not a hit or miss affair. First of all, answer and discuss your purpose questions which were formulated before the silent reading period. Students should know they will be held accountable, if possible, for the answers to these questions. It will help them make a real effort to keep them in mind and organize their replies. A good answer requires selecting among details.

USE OF THE DICTIONARY

Unless students are given practice in using syllabication skills, both in the regular developmental reading class and as applied in social studies and other classes, they do not acquire the needed ease of recognition that allows them to read material, that is not familiar to them, with interest; thus, simply plodding along and translating can become a deadly bore.

Here is a word of warning. It is best not to ask the bilingual student to look up a word in the dictionary unless the word is presented in context. When a word is given in isolation, the student has no basis for choosing among the many definitions offered. It is good exercise to use his dictionary and glossary meaningfully -- and not just to keep him busy.

> Dr. Edgar Mayor, University of Buffalo, has this to say about teaching students to learn a second language: "In foreign-language work there has been a curious lack of clear thinking beyond the elementary level. In the beginning course (this would correspond to primary work,) we carefully and systematically tackle the phonology, morphology, and syntax, designing each lesson to accomplish a meaningful, handleable chunk of work. But as soon as we move to the reading course we abandon all system.
>
> Our readings are chosen apparently for their literary value or their exciting plots, and not for their value as language-learning aids; and apparently we believe it does the student's soul good to look up word after word in the dictionary -- or else that there isn't anything we can do about vocabulary. Unfortunately, as a veteran of many such courses in which I was the looker-upper, I can assure you there is nothing more hateful or demoralizing than having to look up two and three words per sentence. One feels that it is all so haphazard, and that there must be more words than there are stars in the heavens -- and how can one ever learn them all?"

The follow-up activities become all important, in fact "the proof of the pudding." If your students cannot apply the skills taught in the reading period as tools in other subjects, you have indeed failed in your efforts to teach him to read: The skills learned in reading can be extended to give practice in speaking and writing as well as for reading in other subjects.

DIFFERENT TYPES OF READING MATERIALS

It would be amiss when discussing an upper grade reading program not to include a few notes on the type of reading selections found in some of the better basic readers used at this level. The authors of one series give an excellent explanation why each type of selection is essential for a well-rounded reading program.

Short Stories

Reading has not become a real form of recreation for many Indian and Spanish-speaking students. Most of the reading they have done has probably been teacher directed for school work. The very brevity of the short story may appeal to these students because they feel that they can complete the story within a reasonable length of time. A good short story can also be a relief from studying and remembering factual content.

How can your bilingual student discuss freely, and analyze a piece of writing when he has missed the general interpretation, the overtones of satire, direct implications and connotation. Much of his pleasure in reading fiction will hinge upon his ability to use his imagination and intuition to derive meaning.

Prepare for each reading lesson. You must be familiar with your material. Begin to gather a classroom library of short story collections and appropriate magazines, which can be used for supplementary reading. Use available films, filmstrips, and slides that might motivate reading or supplement understanding. (See: Sources of Free and Inexpensive Educational Materials, P. O. Box 186, Grafton, West Virginia; Esther Dever.) Bulletin boards can be used to arouse and sustain interest.

Read to your students: Select good short stories that are appropriate to the understanding and interest of the group. This kind of activity helps to develop reading skills -- and with the correct motivation should encourage oral discussion.

Sociodrama, or role-playing may be used to illustrate problems or situations found in short stories. One author of upper grade texts has this to say: "This type of unrehearsed drama begins with a clear statement of a situation. Members of the class are assigned (or may volunteer) roles that are clearly described. Then, without script or rehearsal, the cast acts out the situation, using whatever real-life speech, gestures and solutions that occur to them. The only direction given to the cast is to act and speak exactly as they think the characters would in real life."

After the sociodrama is concluded have the student audience evaluate the action. This discussion is more valuable than the action itself as it gives students coming from a subculture an opportunity to air their problems and frustrations in meeting the social situations in the school environment.

Non-fiction

One of the most useful skills a person can have in our do-it-yourself society is to be able to read and to follow directions. This is an extra important skill for the bilingual student. He, as well as other teenagers, are eager to learn about the things that interest them--how they are done and why they work as they do. Use materials that give factual reports on youthful exploration. Selections that explain in simple terms how "things" work are valuable in building the skill of following directions.

Biographical selections will introduce your students to young people of courage and imagination. As your bilingual student reads such material he should be helped to look for emerging characterization, and the daily life depicted in the story.

Teachers have found that bilingual students flounder when reading an article or essay which has little or no story line. This is an advanced skill for they must cope with key words and abstractions which should help them understand the author's thoughts.

You will need to make a careful breakdown of the necessary reading process, then the student through step-by-step guidance will eventually read articles on his own. This is easier said than done.

First have the students skim the material to be read, noting the title, the headings, and any other clues to the scope and purpose of the selection. Have them try to decide the purpose of reading this material and if possible relating the apparent scope of the article to his own experience or what he knows about the subject. At first you will have to formulate guide questions about the content for which the students seek answers as they read. In time (don't be impatient) he should be able to make up his own purpose questions. Always remember it is towards independence in reading that the class is moving with your guidance.

Be sure the non-fiction materials you use fall within the sphere of general adolescent interest. Also, materials where the reading problems challenge but do not overwhelm your linguistically handicapped students who will need help from you in the form of systematic instruction.

WRITING

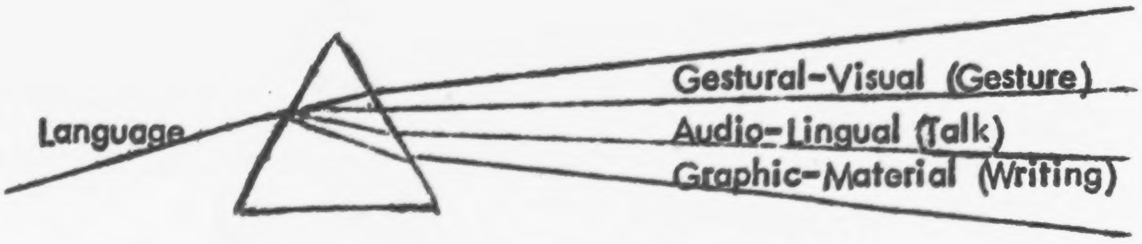
- - -

"Learning to express oneself in writing is a long-time process, probably the most difficult area of language growth."

- - -

We now approach the teaching of the fourth, and decidedly the most difficult area in the communication skills - writing. Here would be an appropriate time for us to stop and review the spectrum of language and how writing fits into the entire picture of second language learning. The following is from Language and Language Learning by Nelson Brooks, Harcourt, Brace and Co., New York (1960) pp. 16-18. In his description he followed in the main the analysis given in section 4 of Psycholinguistics, edited by Charles E. Osgood and Thomas A. Sebeak.

> If the steady flow of language as it passes by the fine point of the present moment could be diffracted into its major elements, like a ray of light passing through a prism, we should observe that it separates itself into three broad bands. These bands may be labeled audio-lingual, gestural-visual, and graphic-material; in simpler terms we may call them talk, gesture, and writing.



> In the central band, the audio-lingual, language is on its own. In this area the speaker-hearer process can operate quite without assistance from the eye, and may be carried on in the dark or, with mechanical aid, at distances far beyond the range of the natural voice. Phenomena in this band are, however, always linked to the present moment, and involve an interpersonal relationship between speaker and hearer and also the situation in which they are.
>
> The gestural-visual band runs parallel to the audio-lingual and includes, principally, the facial and bodily movements made by the speaker and perceived by the hearer. The phenomena in this band often reinforce those in the audio-lingual--the word yes may

> be accompanied by a vigorous nod of the head--but the fact that the central band can dispense with the gestural-visual gives the former an enormous advantage in range and flexibility. Gesture is, in fact, but a faint obbligato in the rendition of speech.
>
> On the other side of the central band is a third, the graphic-material, whose relationship to the audio-lingual is very different from that of the gestural-visual. It, too, makes use of the eye, but to picture not the muscular movements that accompany speech but the spoken code itself. With materials and tools, the hand can depict with considerable fidelity the rapidly changing features that characterize the flow of speech sounds. Although orthography cannot reflect all the rich detail that embellishes the spoken code, it has, in compensation, an advantage not found in the other two bands: mobility in time and space. Like a series of action pictures caught by a camera and recorded on a film, written terms and propositions may be manipulated and stored away for use at another time, may be conveniently transported to a distant place, and may be selected and rearranged in different sequences with consequent modification in meaning and enhancement in effectiveness and style. It is usually the eye that must restore the graphic phenomena to a form that can be interpreted as auditory images by the hearer. The development of this third band has, as everyone knows, completely transformed the life of civilized man, but its complete dependence upon the central audio-lingual band must never be disregarded.

From the above you can see that good second language learning is not likely to result from a heterogeneous mixture of the communication skills from the start, so different are they physiologically and psychologically. As has been pointed out, there is a natural affinity between hearing and speaking, for both are partners in the audio-lingual band. It is equally true that the same partnership exists between reading and writing in the graphic-material band. Going back to the section on oral English in this bulletin, you will remember that emphasis on listening should come first since the ear is the key organ in all speech; it permits the individual to hear what is said and it also controls what he says when he speaks. A person, with normal hearing, will always hear much more than he speaks and read much more than he writes. You may think of listening and reading as the passive skills, and speaking and writing as the active skills.

It is well to state again that it is of fundamental importance to separate during the early stages of second language learning hearing-speaking from reading-writing in order that the former will not hamper the latter. When the transition is made from hearing-speaking to reading-writing material, it must be in terms of areas of meaning (vocabulary) with which the student is familiar.

Space does not allow for giving methods of teaching writing to students learning English in school but you will find that soon after, or about the same time, a child is ready to read, he usually becomes ready to write. His ability with oral English, and the interest that has led him to the point of reading also makes him ready to learn to write. You will find excellent help on the teaching of writing in the following:

MacCampbell, James C. Readings in the Language Arts in the Elementary School. D.C. Heath and Company, Boston (1964).

Monroe, Marion; Nichols, Ralph G.; Greet, W. Cabell. Teacher's Edition (to accompany) Learn to Listen Speak and Write 1[1]. Scott, Foresman and Co., 1960.

Jerome S. Bruner stated in an address before the American Textbook Publishers Institute in 1962, "A textbook should require a dialogue between the printed word and its beholder. Printed materials should take the reader beyond what he calls the "passive plight."" Writing should be the opposite wherein the child makes his written efforts record his silent speech so it may talk back for him or to others.

Remember handwriting is a motor skill. There must be systematic practice in scheduled periods to develop and fix the skills needed. Help the child to see the value of handwriting to himself and to others. Encourage neat and legible writing in all written work. But do not carry this to the degree where it inhibits the student's creative efforts. See the following for specific suggestions:

Botel Morton, Spelling and Writing Patterns Book A Teachers Edition, Follett Publishing Co.: Chicago, 1963.

Expect your students to write for a variety of reasons. Creative writing serves purposes far beyond mere facility in putting words together in sentences. While accuracy and correctness is highly desirable, the main purpose is to train the student in self-expression.

Indian students have a better-than-average ability to express themselves in writing: their ideas are frequently vivid, concrete, and original. Where they fail in expressing themselves is their lack of vocabulary items and their misuse of English idioms. Keep in mind a satisfying experience with one paper is worth more than frustration with six; a neat paper which says nothing is of less value than an imperfect effort at saying something important to the writer. Every child should be given the satisfaction in seeing on paper the simple projection of his own discovery about the world.

The mastery of the tools of communication develops from a social need. The classroom in which language is used in multiple functional situations should be the kind of environment in which children can develop the need for language use, in all its phases, and have the models for use. Give students many opportunities to write - as with speaking - a student can only learn to write by much practice in writing about the things that interest him.

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Croft, Kenneth	*English Stress and Intonation.* Washington, D.C.: Washington Publications, 1961.
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Wise, Claude M.	*Applied Phonetics.* Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1957.

SOCIAL STUDIES

> Our social order is changing daily: new ideas, new concepts, and new developments are recorded on every page of current history; yet few are able to keep them in proper perspective or to relate them to everyday living and see their implications for the future.
>
> The teacher who can do this and lead others to do it for the Indian child has a "plus-quality" as a teacher.

Indian students growing up in the second half of the twentieth century find themselves living in a divided world. Many of their parents and grandparents still live on the reservation and are living very near the primitive life lived by their ancestors. The student has remarkable opportunities for living and learning in a period of change marked by an explosion of knowledge. They find themselves in an aerospace age, which to them many times is a paradox, as they haul water in a wagon drawn by horses as a jet plan flies overhead. Too, they find themselvaes in a world beset by problems and tensions as they feel the pull of the Indian way of life as the teachers and other non-Indians push them into a world where man seeks to control the Frankenstein scientific weapons and tools he has developed.

The grandsons of Geronimo, the Apache warrior, were with Astronaut John Glenn as he orbited the earth on February 20, 1962, as they watched, heard, and saw the events by means of a school television. That evening they went to their homes and slept in native Apache wickiups. This situation and many like it present a tremendous challenge to teachers to select and organize the learning experiences of Indian children in such a way so as to be adequate and effective for living in the present as well as for the years ahead.

It has been found by experienced teachers that unit planning and teaching is one of the best ways to provide for learning experiences, in the social studies, on a sufficient broad base for the requirements of Indian students learning to live in today's world.

Just to know why it is advantageous to use unit planning and teaching with Indian students, we must examine briefly how it differs from more formalized, book centered methods. Increased opportunities are possible for using a variety of material suited to the students needs and concerns. By centering the curriculum on the children's needs, you are able to capture their interest. Social studies come to life as the student sees the connection between his present problems and the subject matter being presented.

All present day teachers have been trained in the use of the various kinds and varieties of unit plans and unit teaching used in our elementary schools. Just which type of unit you will use will depend on the cultural environment of your students and the educational philosophy of your administration. Everything in the school day cannot be related to your unit. With Indian children time must be scheduled for developmental work in mathematics, the communication skills, science, music and art, etc.

The majority of elementary social studies courses and guides contain units or recommend unit planning and teaching. This is because so much of the elementary curriculum revolves around social education in its various aspects. Be sure that your social studies units are characterized by problem solving and research reading and study. Place emphasis upon the development of concepts, map and study skills, and above all on socializing experiences through which the child may develop cooperation, acceptance of responsibility, and consideration of the rights of others as a way of life. Prepare your Indian student for first class citizenship, as a child and in future years; give him an understanding of his world -- tribal, local, state, national and international. Only by wise planning can you give significant purpose to your social studies experiences for the Indian student in your classroom.

You will find the above philosophy well expressed and many valuable helps given in:

> Hill, Wilhelmina, Social Studies in the Elementary School Program. Washington: U. S. Government Printing Office, 1960. (Bulletin 1960, No. 5, U. S. Department of Health, Education and Welfare, Office of Education, OE-31000.) Price 45 cents - send money with order.

Now to touch briefly on the surroundings and materials which facilitate the teaching of the social studies. Ideally, the classroom environment should be flexible, challenging, and supplied with rich and varied materials. Is this always possible?

Your room arrangement can be controlled if you have movable furniture. When the class is working together as a whole, the students may be facing the teacher or resource person. In class discussion it is well to move chairs so students may see each other's faces as much as possible. (Do you like to talk to a person's back?) When space is needed for some big activity or program, it may be obtained by placing chairs and tables in a double wedge or square around the room. During periods when children are engaged in small group study or expressional activities, their seats and tables may be suitably arranged in small groupings.

There are innumerable ways in which a classroom may be arranged during the course of a unit. It is almost impossible to give a plan to fit all classroom situations. However, remember the arrangement as far as possible should be flexible and functional, in accordance with the activity taking place. Adequate space for activity must not be overlooked even if you must move your activities outside the classroom to allow for the motion and action that comes with unit activities.

As the unit develops, students and teachers find it advantageous to arrange centers of interest where materials are on display and available for use. Arrangements should be attractive and should stimulate interest. Appropriate captions and labels might be made by the students.

Another idea is to arrange activity centers for special work such as construction, painting, making a class booklet, raising plants. Make the children responsible for keeping these centers well supplied and in good order.

School grounds are important, too. Many learning experiences relating to conservation, weather, geographic features, seasons, science, and safety can be carried on outdoors. (Envy the teacher whose schoolroom is within walking distance of Canyon De Chelly National Monument on the Navajo Reservation.)

One of the advantages of unit teaching and learning is the use of varied instead of restricted materials. This does not mean that a wealth of expensive materials is essential. It does mean, however, that reliance is not placed entirely on a single textbook, but on several kinds of materials. Of course it would be helpful if most of these rich and varied materials could be supplied by the school. Whether or not this is possible, teachers and pupils should explore many sources of appropriate materials and assume some responsibility for locating and obtaining them.

Have you explored the wonderful world of free materials? There are thousands of sources of free materials. You will find the following book of great value as it lists hundreds of carefully selected, free resource items, along with information of their nature, purposes, and use in the classroom:

> Free and Inexpensive Learning Materials - Price $1.50
> George Peabody College for Teachers, Nashville,
> Tennessee. (1962)

Not only pamphlets, but films, filmstrips, tapes, scripts, transcriptions, maps, charts, posters, exhibits, and magazines are available to teachers--absolutely without charge. They cover a dazzling variety of subjects, which they approach from many angles and viewpoints. For today's teacher, who frequently finds textbooks obsolete almost as soon as they come off the presses, current materials produced by associations, industry, universities, and government agencies are essential. They are often the only way in which he can help his students keep up with the new information coming out constantly in their field of interest.

When you decide to explore the world of free materials, and to order them, you have only taken the first step. The giant step is yet to come: figuring out ways to use the material creatively, imaginatively, effectively. Prevailing throughout the entire classroom environment, for a unit experience, there should be a stimulating atmosphere which excites the children intellectually and causes them to pursue the unit studies with a strong interest drive. There should be much color and life, and realia surrounding the students.

Pamphlets and Booklets

Use their covers, illustrations, and headings to liven your bulletin boards.

Have a "Free Fair"; a permanent (if possible) rack display of free materials in quantity for students to pick up, read, and keep.

Distribute copies of a folder or booklet, assign it as class reading, then have a group discussion of its contents.

Encourage students to keep small folders in their pockets or purses for reading at odd moments during the day.

Have students make classroom exhibits or school open-house exhibits, using free materials on the subject they are studying.

Films and Filmstrips

Before showing any film or filmstrip to your class, be sure that it fits their needs. If you have sent for a film and, after viewing it, find that it does not quite do the job intended--send it back.

Always plan on after-the-showing class activity: question and answer session; group discussion; appraisal of content.

Instead of waiting until the entire film or filmstrip has been shown, you might try stopping it from time to time for class discussion.

Tapes and Transcriptions

Looking and listening are passive. Encourage students to think of "action steps" they can take as a result of hearing tapes and transcriptions. One class, after hearing records of accomplishments by persons who had been born blind, decided to spend one school day "in a blinded state," with black cloths over their eyes. A music class, after hearing free folk-music transcriptions, might decide to write a folk song of its own.

Posters

Posters can do more for your students than get a message across fast. They'll learn more from a poster if you have them analyze it and think of other ways to say it--better: other pictures, a different slogan, more effective colors. As they analyze "the message," and think of better ways to say it, they are thinking critically about the idea expressed on the poster. This builds vocabulary in English.

Just as a quick source of reference the following lists of unit materials are suggested:

Publications
- textbooks
- supplementary books
- sets of reference books
- collections of stories or poems
- songbooks
- magazines
- newspapers
- news weeklies
- references for use of the teacher

Audiovisual Materials
- television
- radio
- recordings
- films, filmstrips, slides
- flat pictures of all types
- relia - real objects

Maps and Globes

Scientific Equipment and Supplies

- magnifying glasses
- weather instruments
- rock collections
- rulers and scales
- equarium
- herbarium
- animal cages
- compass
- magnets

Art Materials

Community Resources

- field trips
- resource people from community – including tribal leaders

In the area of social studies, untold opportunities arise to convey to the child coming from a sub-culture the ideal image of what the behavior and thoughts of the members of the dominant culture should be. Out of a good social studies program can come a greater depth of cross-cultural understanding between teachers and students.

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Hunnicutt, C.W., ed. Social Studies for the Middle Grades. Washington: National Council for the Social Studies, National Education Association, 1960. Ch. 6.

Sizemore, Mamie. The Arizona Indian Child Goes to School. Division of Indian Education, State House, Phoenix, Arizona

ARITHMETIC

In a sixth grade classroom the teacher felt very proud of her achievement. She had taught her group of Navajo students how to do division of fractions. That day she had several perfect papers. When one of the boys came up to get his paper on which he had worked correctly 100 problems, he asked, "Where do you use division of fractions?"

This really deflated the teacher as she realized that she was teaching the how of mathematics and not the why.

Think how confusing the word zero can be to a child learning English in school:

> When the temperature is zero degrees, this does not mean no temperature. Zero sandpaper does not mean no sandpaper. Various items of merchandise have sizes of zero. What does this mean? Zero as beginning point on a scale such as illustrated in latitude and longitude, has many modern uses. Zero as a number in our system of notation is used in a slightly different sense when a number like 605 uses a zero to fill the "place" which otherwise would be vacant and would lead to confusion if we had no conventional way to identify the proper "place" of the 6 and 5 in the number system.

Is it only the Indian student who is bewildered by the mathematics program to which he is exposed? No longer is mathematics believed to be for the exceptional person, for the aristocracy of intellect, or for the few. It is becoming necessary for the entire population to have a basic understanding of mathematics to cope with the growing complexity of life.

The percentage of students failing in arithmetic over the years has surpassed that of any other subject in the curriculum. Even among the ones who passed, all too many have come out of grade school with such a dislike for arithmetic that they have not elected to take courses in mathematics in high school. Probably a majority of today's adults look back at arithmetic as a "necessary evil" of their elementary school days.

Obviously we would be dodging our responsibility if we didn't keep a constant lookout for better ways to help children understand arithmetic, enjoy it, and be interested in going ahead with courses that will give them better backgrounds for understanding. Before we go into why our traditional programs have fallen short of doing the best job possible and how we can revamp our mathematic programs to keep pace with the demands of our society, let us look briefly at the problems the Indian student faces in mathematics in addition to the ones experienced by the child from an English speaking home.

The purpose of instruction in Arithmetic may be stated in terms of the service it renders. It has provided the race, and it provides individuals with a method of attack upon the quantative situations of life. Modern industrial society did not come into existence until Arabic numerals had been invented and accepted as a means of number thinking. The demands of modern living make arithmetical competence one of the real imperatives. Teachers should be aware of the importance of making the Indian child "conscious" of the usefulness of such a world of numbers; as a contrast of concepts, some Arizona Indian languages use the word "many" to denote any number larger than five. A child in the dominant culture is born into a society that is founded upon an understanding and usage of the number system. He is fed on a schedule, and is made time conscious from the time he is an infant. Almost the first words that he learns are those of the counting nursery rhymes, as his mother counts his toes and fingers.

As the non-Indian child grows older he takes trips with his mother to the supermarket, where he rides around in the mobile shopping basket while she does her shopping. He is tutored in quantitative thinking. Measurements of size, of distance, of degree and of time keep pace with his growing vocabulary and his widening experiences. He becomes familiar with number symbols, house and street numbers, license plates, telephone numbers, calendar dates, book pages, clock face figures, and so on. Many of the games he learns to play are competive, where counting is necessary. By the time the average non-Indian reaches school age he has knowledge of numbers. That is, he has a certain number readiness built up by his everyday experiences.

But what about the Indian child? Many of them come to school without being conscious of this important world of numbers of the dominant society in which he is expected to grow up as a useful member. He is not number conscious because he has never felt the need to build up the concepts that many of his classmates have already acquired. Buying and selling and the exchange of money, working for wages, dividing his day by the ticking of a clock are acquired concepts of adults and are not natural to the child of this unhurried culture.

The way initial arithmetic is presented to the Indian child has an important bearing on his life, as well as his quantitive and general thinking. Next to learning to speak English with ease and understanding, learning to think arithmetically is one of the most vital needs of any child. Arithmetic is based upon logic and reasoning and when properly taught involves the solving of new problems through the application of known facts. Good instruction in mathematics can help the child handle quantitative situations in life intelligently and without doubts and uncertainty.

Language is the children's tool for thinking; this is true in arithmetic as well as with other subjects, but may be a hindrance to learning if the terms are unintelligible. Words mean to the individual only what they represent in his experience. Teachers of Indian children should stop to think how confusing to the young Indian child the concept of numbers is. Take for example the "concept of five." It is very confusing to think five objects, name them in English, line them in a row, then touch them mentally, and give to each its English number name. This would be much simpler for a child reared from birth to be number conscious, and speaking English as his native language.

One of the most misleading fallacies current in our school procedures is the fond and uncritical belief that, once children have had explained to them the usefulness of learning, they will become eager seekers after truth. Psychological experiments have repeatedly shown that organized content is more readily learned than is content presented in a miscellaneous and unrelated fashion. A psychological theory of learning which emphasizes the value of understanding, places major emphasis on organization of content, and a selection of teaching methods which will make number relations more prominent, and give meanings to the entire subject.

Modern principles of learning attest to the value of using objective materials in learning arithmetic. The wise teacher has his pupils use their hands, eyes, voice and ears in respect to the things being learned. The rate of learning; the enjoyment of learning; the depth of understanding and the rate of forgetting, seem to be favorably affected when children can see and handle as well as hear about and talk about the things they are learning. Current books on the teaching of arithmetic reflect the most recent trend of development of meanings and understandings before proceeding to abstract work with numbers. First the child must deal with concrete objects by which the process can be dramatized and directly demonstrated; then by pictorial or diagrammatic representations which reveal the function of the operation, and finally by solving many verbal problems, and using practical textbook, in which the need for the operation occurs in many language forms.

What then are some of the ways to help an Indian child to think in arithmetical terms? Teachers are prone to take for granted that Indian children have number readiness, which usually they do not have. Teachers of beginners should not forget they may have to start from scratch.

Drill, probably, is the most common form used in teaching arithmetic in many schools. Indian education, in its native environs, traditionally was based upon observation, imitation, repetition and memory. This is not adequate in the modern world. Indian children must be given skill in thinking out new solutions for new problems, rather than be allowed to follow a memorized rule and to be at a loss if the situation is slightly changed. This will happen with too much drill without meaning, which leaves the Indian child with a mass of memorized data and no idea of how or when to apply it. An example of teaching without meaning is given below:

> A young Papago man called on a former teacher one afternoon after school. He had been hired to dig a well and was to be paid by the cubic yard. He wanted to know how to figure his pay. The teacher explained how to figure cubic measure using the well he was to dig as an example. The young man studied awhile and said, "That is something like you taught us in the 8th grade about finding the area of a circle and then multiplying it by the height."

Now, shall we go briefly into the guiding principles of the newer mathematic programs? Using the above discussion as a criterion, let us judge just how well these programs will serve the Indian student. Will they produce better results than the traditional programs still being used in many schools?

The arithmetic programs of the past assumed that it was impossible to explain to children the real meanings of arithmetic. Instead of helping children get acquainted with the comparatively few basic ideas that shed light on every phase of arithmetic, traditional books asked children to memorize a multitude of rules. For, too many of, our linguistically handicapped Indian students, the task of having to remember so many seemingly disconnected rules resulted in frustration and utter discouragement.

Then, too, the traditional program has not kept pace with the demands of our society. It has continued to confine itself almost entirely to a mechanical development of computational skills. It has failed to develop problem-solving abilities that are necessary to use the computational skills – as illustrated by the anecdote used at the beginning of this chapter.

A complete discussion of effective methods would unduly extend this section on arithmetic but some general principles can be stressed and interest aroused so that teachers will go forward on their own.

Any system used should provide a careful development of the base ten system. Numbers should be seen as members of a system and this involves seeing relations; such action requires much more than knowing the names of the "places" in written numerals. Time given in the early grades to helping children get extra-well-acquainted with our number system allows teachers to accelerate the learning of the addition, subtraction, multiplication, and division processes later on.

Basic facts the child needs to know to solve arithmetic problems can be introduced pictorially and by using real objects. No preferred way for presenting facts should be followed for stating or writing the basic facts (for example, 2 threes = 6 instead of 2 times 3 = 6). Instead, all forms in common use should be introduced and used so that each child must be prepared to understand the basic facts whenever he meets them outside the classroom. This reasoning is consistent with the author's conviction that in producing understanding, verbalizations for Indian students are not as effective as pictures, active work with objects, and similar concrete experiences.

Speaking of pictures, each one used in arithmetic textbooks should be a learning aid. Few pictures should be presented for purely decorative value. The pictures in modern arithmetic books many times show the basic data involved in the problem situation. One interesting technique that has been found effective with Indian students is to employ a sequence of related scenes, or movies. These related scenes serve as a guide to teachers and pupils who wish to use actual objects to gain additional experience with the ideas.

As stated above several times, the purpose of studying arithmetic is to learn how to solve quantitative problems. Since the task of learning arithmetic is sufficiently difficult for the Indian child, it is foolish to add extra burdens in the form of vocabulary and reading difficulties. However, teachers often say the difficulty in problem solving is that "the Indian pupils cannot read the problems." Experience has taught teachers of Indian students that pupils usually recognize the individual words; what really happens is that the pupils cannot inerpret the situation. Dependence on so-called "cue" words or other superficial techniques leaves the bilingual student in a weak or helpless position. They must learn to base their decisions about which process to use on an understanding of the total process. The development of such an understanding on the part of the child should be the concern of every teacher of Indian students.

Teachers will ask "Are children expected to learn multiplication tables?" Indeed they are! What we used to call the "time tables" are more commonly known today as the "multiplication basic facts," and children should learn them right along with the addition, subtraction, and division basic facts. In the past, boys and girls memorized the basic facts by reciting them again and again in monotonous sequence, with no attention to the meanings involved. There was little attempt to provide the understanding, interest, and motivation that are necessary for most effective learning. Always keep in mind that in learning the basic facts involving numbers over ten, we help children build on their previous knowledge (which has been well mastered) of the number system.

In way of summary let us use the process of adding, as an example, where in the new arithmetic programs the organization of the learning situation at each stage contributes to better understanding at following stages. In the past we usually separated addition into many different "skills." Addition involving two-figure numerals with carrying was delayed for weeks, even months, after addition without carrying had been taught.

Learning to add by working many examples that involve no carrying before meeting an example that does involve carrying develops a false concept of addition. It is like learning to drive on a street where, by special arrangement, the traffic lights are all green; the driver never learns to observe such lights. (In accordance with this same general principle, the process of subtraction is introduced by examples that require borrowing. These examples are immediately followed by an example that does not require borrowing.)

Because of these traditional organizations, children often fail to understand the nature of the task as a whole. For example, when addition without carrying comes first, the child cannot understand why he is told to begin adding with the "ones." He can find the right answers by working with the "tens" first. He can work the examples either way he pleases, often forming bad habits that escape notice by the busy teacher. In the long run, lack of insight on the part of the pupil makes the situation more difficult for both pupil and teacher.

Have you ever stopped to think that a nation's wealth is vested in its youth; its human resources are more important than its inventions, discoveries and possessions? The American Indian child is part of our nation's potential wealth. Do you, as a teacher, recognize this wealth? There is the same proportion of gifted Indian students in our schools as in the general school population. If properly taught, they can provide a source of supporting manpower, both as semiskilled and skilled technicians; and among them may be potential scientists and engineers.

Just what are you doing to vitalize your arithmetic program?

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SCIENCE

> "Today all over the world and among all peoples there is an awareness that scientific literacy is essential to an understanding of the nature and events of contemporary civilization."

The Navajo child is taught by his grandmother to use his thumb, not his forefinger, to point at the rainbow. To use the forefinger might cause it to become curved like the rainbow. Snakes and bears are not killed as they have connection with certain spirits. Owls are an omen of bad luck among certain tribes. Hopi children watch and believe in summer ceremonials that their people perform to bring rain.

For the Indian of today the world will not wait - it is rushing in upon their reservations, into the area called by the present Secretary of Interior "the last real frontier." For the American Indian education is rapidly becoming a thing, not of chance, but of survival. The old ways must change as the reservations will not support their growing population. The Indian child of this day has difficulty enough in reconciling the traditional Indian ways and the frantic pace of white man's culture without confusing him more with a sterile, bookish science curriculum.

Just how are you going to present the science for our changing world to these students. We are undergoing a revolution in the sciences. The amount there is to know today in any field of science is staggering. As teachers we are all embarrassed by what we don't know, and even more so by what we have forgotten. Never has man needed to know so much - just to be ignorant. It is little wonder we have a crisis in science education for all students. This makes it doubly important to give special attention to students reared in a subculture.

Speaking of science teaching in our schools today, we realize that for the last half of this century the curriculum must have dimensions different from those of the past.

In a vague way we give lip service to these dimensions and use such cliches as "excellence," "quality," or "rigor." Unfortunately in too many schools, even though there has been much curriculum activity, the "new" is little different from the "old" except that it is administered in larger doses. We find just as many, if not more, Indian students making failing grades in upper elementary and high school science.

In examining the new science curriculum of many schools, we find that teachers have adopted a "more of" philosophy: more homework, more hours of laboratory work, more equipment to do more laboratory work, more problems in mathematics to hand in, more "right answers" to pass the course, more science and mathematic courses in order to graduate, more acceleration of students, more education for teachers, more hours of classes per day, more months of school to get more science to get into college. These movements are perhaps commendable, but they have frequently resulted in just more of the same old program.

The world of our students, Indian and non-Indian, is not our world. And our efforts as teachers must be to give them intellectual security for the world in which they will live and compete. Science taught as a process of inquiry and as a model of thinking provides the best means so far discovered to enable all young people (who are mentally and physically capable) to participate in both the world of today and the world of tomorrow. The creative mind has become the most precious resource of our generation and this should be the major object of all education.

The great national interest in science and the improvement of our scientific effort has two primary implications: We must get on the job of building K-12 science curriculums with scientifically rational sequences and process goals which are developmental in terms of concepts that are based on the needs, interests, and abilities of all students at each grade level. Also we need to prepare teachers to do the job demanded by the new curriculum.

Children are interested in the world about them. You will hear such questions as:

What makes night and day?

Why does it get cold?

What makes radio talk?

Helping children learn to solve problems like these can be the major objectives of our science program for all children. Perhaps the greatest appeal of science to the child learning a second language in a new culture, is activity. He must have first-hand experiences that help him see relationships and make applications. Knowledge, to be of greatest value, must be usable beyond the context in which it is learned. Build your primary science program upon children's ever-present curiosity and interest in the world around them

Max Planck, sometimes called the father of modern physics, when asked to name what he thought was the best laboratory manual answered, "One hundred pages of blank paper." This should be the "spirit" of new science teaching, where the student will have an opportunity to think, to organize his own ideas, and to evaluate his findings in the light of known theory or through applications. He will learn that his so-called conclusions only establish a basis for continued exploration; they have no meaning alone.

In our fast-moving world, as has been stated above, learning how to find the answers to questions is as important as the answers themselves. We cannot give children all the scientific information they will need in a lifetime. We can help them by teaching them to read well and with an inquiring mind. We can help them become people who feel confident in using the problem-solving process, both independently and as members of a group.

Here are a few words of warning. There is danger that classroom science experiments will become gadgetry things of noise and smell and activity, if children do not know the purpose of the experiments and only do them because the teacher makes the suggestion. If children cannot state the purpose of their activity clearly and are able to recall these purposes when they report their findings, the experiment is meaningless and a waste of time.

Providing a classroom environment full of things for children to ask questions about helps set the stage problem solving - a variety of materials to inspect and handle, living things to observe, books, pictures, films. Guided observation on field trips helps, too, and teachers should be able to rely on basic texts, well written with a vocabulary the student can understand, to help children solve problems in varied areas: Why can't we keep our fields from washing away after summer storms? Why can't the mother sheep have more lambs each year? How does the television get its picture? How can radio come through the air? Let's remember always to make sure the problems they are engaged in solving are their problems, not merely the teacher's or the book's.

We will all admit that a distinguishing and presumed essential feature of any science teaching is laboratory work. But let us look at some laboratory experiences that our Indian students are having in today's high schools.

In a certain biology class, students were told that biology is the study of life. And then the teacher spent nine months to prove that statement with a parade of dead, preserved, embalmed, pickled, pressed, embedded, and otherwise immobilized and distorted specimens. He was very surprised when most of his Indian students failed the course. He remarked, "Even the smarter ones failed."

This case is not an exception. As the author observed in classroom after classroom, there is seldom use of the frogs that jump, fish that swim, flowers that smell, worms that wiggle, birds that fly, or students that are required to think. Teachers struggle to teach life processes from organisms that have none. They forget that learning is truly accurate only insofar as the students have opportunities for a true experience with the phenomena or materials under study.

In many science classes there is a futile attempt at "coverage." Textbooks have become thicker as increased knowledge in each field is added. Courses have become larger inventories of facts, and teaching a mad race from September to June. This has been a sure way to develop a neurosis in a teacher and a dislike of science in a student. Most times new scientific achievements are added to courses but seldom is anything dropped. The accepted rationalization is that what we now teach is fundamental or basic, whereas it is all too frequently only traditional.

Ther personal observations of the writer are substantiated by a study made by Howard E. Gruber and reported in "Science Teachers and the Scientific Attitude: An appraisal of an Academic Year Institute," Science 132 (19 August 1960), pp. 467-468. He made a study of 55 high school science and mathematics teachers who attended an academic year institute at the University of Colorado; he found that the program's main weakness is that it transmits attitudes and information relevant to teaching science as a body of knowledge, not as a way of thinking.

In view of these facts how are we going to plan a science program in our schools that will meet the needs of all children? It is no longer possible either to know or to teach more than a fragment of any field of learning. Since the time of Newton, the production of new knowledge in science has been increased by a factor of 1,000,000. It has been estimated that we spend 150 hours each school year in teaching science. What ideas and facts should we choose from the research in science that we judge to be of most worth to teach in these few hours?

Teachers of Indian students must realize that there is a difference between teaching science and teaching useful knowledge. We have been so concerned with the answers pupils give that we forget that "science is more a verb than a noun." Also we have been so busy teaching subject matter that we have forgotten to teach the science of each subject.

By way of summary let us look to the trends in science teaching for a changing world and how they will affect our teaching of the bilingual, bicultural student in our schools. The extent of present-day knowledge demands that significant knowledge be taught as early in school as can be comprehended. Another development in the new courses has been to reduce the number of facts presented, and then to reorganize the remaining facts around a few broad integrated themes.

Immediately upon reading this teachers will ask, "Aren't we going to teach facts any more?" The answer is yes, but not as an inventory of science conclusions to be memorized, parroted, and forgotten. Just how much do you remember of the facts you learned in secondary science?

Considerable part of class time must be spent in analyzing, organizing, and relating learnings until the student is able to form concepts and to recognize something of the nature of the subject. With help and guidance from a teacher, the student needs to learn how to learn within the context of a particular subject content. Time after time Indian students fail in college because they have not been taught how to attack new materials and subject matter without being "told how."

Another weakness of our present science programs is the planning for training of science teachers which has been largely the responsibility of college scientists who have planned on limited knowledge of what elementary and high school teachers need. Experience has taught that it would be more appropriate for teachers from the schools and the colleges, who train them, to plan cooperatively. The effectiveness of the curriculum and teacher training thus developed could be evaluated in terms of measured changes that take place in the schools. A cooperative attack on the problem by several states is paying high dividends.

It is evident that science cannot be taught well in the secondary schools unless it also is taught well at the lower levels. But what shall we teach and to what ends? The science courses which meet the demands for the changes now taking place in our society must be quite different from those now taught. The course content needs to be selected from a new point of view, and the methods of teaching must be those which will develop intellectual competence and educational self-direction.

Indian children who are learning to question, to seek and verify information, to test hypotheses, to organize and evaluate results of study and experimenting are becoming better able to live in our complex society. These students will be far better equipped to handle the knowledge gained than were these two little Navajo students:

> The teacher had just finished a "well prepared" "highly motivated" presentation to her students of how our world was formed by the sun throwing off a fiery ball which eventually cooled and made the earth. A Navajo boy raised his hand and asked, "Is this true what you tell us?"
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> The teacher was rather startled by this question and answered, "This is what our textbook tells us."
>
> After a few minutes of thinking he said. "When I was a child my grandmother told me how the Navajo people believe the world was made. Then when I went to live with the missionaries they told me how God made the world. Now you tell me a new story. What are we poor Navajos to believe?"
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> LeRoy Begay was told during a health lesson to draw a chalkline on the floor 26 feet long to illustrate the length of the small intestines in a human being. After drawing the line there was a discussion about the function of the intestines.

LeRoy was very interested. He stood up and looked at the line, and then at the teacher. "You mean that all of that is wound up in my stomach?" "Yes," said the teacher. "I don't believe it," said LeRoy. "That's just Whiteman superstition."

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THE TESTING OF BICULTURAL CHILDREN

A great deal of concern over the use of standardized tests with bicultural students is usually shown by educators in schools having a high bicultural population. This concern is well founded in that from a technical standpoint the reliability, validity and norming of standardized tests have been established for the general population rather than for a particular bicultural group. The establishment of local norms does not entirely solve the problem in that reliability and validity are still uncontrolled and the spread of scores may be too little to differentiate among the students. The use of intelligence and achievement tests with bicultural students is discussed below to explore some of the problems involved.

Intelligence Tests

The major purpose of intelligence testing in schools is to obtain a measure of "native" ability so that the appropriateness of a student's progress may be evaluated. While it is generally accepted that the people of all cultures have the same native intelligence, many cultures do very poorly on intelligence tests. To facilitate the testing of these groups, some tests that are purported to be "culturally fair" have been constructed.

A review of these tests reveal, however, that one or more of the following assumptions were accepted in the construction of these tests.

1. A definition of intelligent behavior based upon our cultural values is applicable to all cultures.
2. Tasks that are non-verbal in nature are automatically "fair" for all cultural groups.

3. Tests that are "fair" with one bicultural group are automatically fair for all cultures.

4. The same type of test-taking motivation may be assumed for all cultures.

Research that would substantiate any of the assumptions listed above is lacking and, in fact, the following hypotheses are indicated:

1. Intelligent behavior is defined differently by various cultures. While our culture stresses speed, competitiveness, aggressiveness, and mastery over nature, other cultures may stress cooperativeness, timelessness, and acceptance of nature as it exists as intelligent behavior.

2. Cultures vary in the degree to which they stress non-verbal behaviors. Children from some cultures are just as handicapped in the manipulation of numbers and geometric designs when they enter school as they may be in verbal activities. While ability in non-verbal tasks may progress more rapidly than ability in verbal tasks, non-verbal tasks which the culture does not stress will continue to be difficult for bicultural students.

3. Several tests that are fair for one bicultural group are not fair to other bicultural groups since bicultural groups vary tremendously.

4. Many bicultural groups do not reward the competitive behavior necessary for success in many intelligence tests.

Some tests are "fair" to bicultural groups. The Arthur Performance Scale and the Goodenough Draw-A-Man Test, for example, are fair to certain Hopi and Navajo Indian groups. The use of these tests by educators has been limited because these tests have not correlated highly with the academic achievement of these groups. If the hypotheses listed above are correct, it is logical to expect that tests that are "fair" for a bicultural with divergent values would not necessarily correlate highly with academic achievement in our schools.

The Arthur Performance Scale mentioned above has had limited use because it is an individual test that requires a testor trained in individual mental testing. A limited number of studies involving this test and the WISC indicates that while they are not fair to all cultures, many bicultural groups scored quite well on these individual tests. It may be hypothesized that the higher scores may be because the testor is able to better control test-taking behavior in individual situations.

On the basis of the rationale that has been presented, the following guide lines are presented for testing the intelligence of bicultural children:

1. It is unrealistic to expect an intelligence test to be magically "fair" to all cultures and accurately predict behavior when the values affecting the definition of intelligent behavior vary drastically.
2. Tests which may be "fair" for one bicultural group may not correlate with achievement and hence be of limited value to educators.
3. Intelligence tests should not be given to bicultural students simply because it is routinely given to the other students. This practice may result in bicultural students erroneously being labeled as "slow learners." The testing of biculturals should have a definite purpose and carefully selected tests should be given.
4. Individual tests should be given when feasible so that test-taking behavior may be better controlled.
5. A test which separates verbal and non-verbal scores may be more descriptive of the relative ability of upper grade bicultural students.
6. Test results for bicultural students should be used with a great deal of reservation by people who are familiar with testing bicultural students.
7. It is imperative that other sources of information such as teacher opinions, grades, anecdotal records, and work samples be used in conjunction with test scores if test scores are to be read.

Achievement Tests

The major purpose of achievement testing in schools is to objectively test the degree to which students have learned the skills and knowledge that the school has attempted to impart. Since most bicultural students will need to compete educationally and vocationally in our society, it is logical that they take achievement tests to determine the degree to which they succeed in learning these skills and knowledge. However, it should be firmly remembered that for most of these students this is a test in a foreign language concerning a foreign culture. One should also remember that test taking motivation is not controlled and the same problems of reliability, validity and norm groups for the dominant population only, exist.

With these reservations in mind, the results of achievement tests for bicultural students can be used as a measure of their success in our schools. Other measures should be used in conjunction with achievement scores and usually the results may be viewed as a minimum measure of achievement, with the maximum achievement an unknown.

Conclusions

Many technical and practical problems involved in testing bicultural students are reviewed in this paper. Because of these problems, the obvious conclusion reached is that if bicultural students are to be tested with standardized tests, it should be done by trained persons cognizant of the many limitations of these tests for bicultural students. Indiscriminate testing may result in the inaccurate labeling of an individual child and could conceivably outweigh the benefits derived from a testing program.

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